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YERINGTON MINE SITE

DRAFT BASELINE HUMAN HEALTH RISK ASSESSMENT WORK PLAN FOR THE PROCESS AREAS OPERABLE UNIT

RAMBOLL ENVIRON

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ACRONYMS AND ABBREVIATIONS

ABS_d	dermal absorption factor
ABS_{GI}	gastro-intestinal absorption factor
AF	adherence factor
ALM	Adult Lead Model
ARC	Atlantic Richfield Company
AT	averaging time
ATSDR	U.S. Agency for Toxic Substances and Disease Registry
bgs	below ground surface
BLM	U.S. Bureau of Land Management
BMD	benchmark dose
$BMDL_{10}$	benchmark dose limit representing a 10 percent risk level
BW	body weight
CDC	Centers for Disease Control and Prevention
CMP	comprehensive management plan
COPC	constituent of potential concern
CR	contact rate
CSF	cancer slope factor
CSM	conceptual site model
CTE	central tendency exposure
DSR	Data Summary Report
EC	exposure concentration
ED	exposure duration
EF	exposure frequency
EPA	U.S. Environmental Protection Agency
EPC	exposure point concentration
ET	exposure time
HEAST	Health Effects Assessment Summary Tables
HHRA	human health risk assessment
HI	hazard index
HQ	hazard quotient
IEUBK	Integrated Exposure Uptake Biokinetic Model for Lead in Children

IRIS	Integrated Risk Information System
LNAPL	light non-aqueous phase liquid
LOAEL	lowest-observed-adverse-effects level
MSD	mass soil-to-dust transfer factor
MVEC	Mason Valley Environmental Committee
NDMA	n-nitrosodimethylamine
NOAEL	no-observed-adverse-effects level
OU	operable unit
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PEF	particulate emission factor
PM_{10}	particulate matter smaller than 10 µm in diameter
PPRTV	provisional peer-reviewed toxicity value
p-RfD	provisional reference dose
PRG	preliminary remediation goal
QAPP	quality assurance project plan
QA/QC	quality assurance/quality control
RBA	relative bioavailability adjustment
RfC	reference concentration
RfD	reference dose
RI	remedial investigation
RME	reasonable maximum exposure
RMP	resource management plan
RPF	relative potency factor
RSL	regional screening level
SH	gamma shielding factor
Site	Yerington Mine Site
SOW	statement of work (for Anaconda Mine Remedial Investigation/Feasibility Studies)
SPS	Singatse Peak Services
SSA	skin surface area
SVOC	semi-volatile organic compound
TCEQ	Texas Commission on Environmental Quality

TMB	trimethylbenzene
TPH	total petroleum hydrocarbon
TPH-D	diesel range TPH
TPH-G	gasoline range TPH
TPH-M	motor oil range TPH
UAO	unilateral administrative order
UCLM	95th percentile upper confidence limit of the mean
UPL	upper prediction limit
URF	unit risk factor
VLT	vat leach tailings
VOC	volatile organic compound
WHO	World Health Organization
WOE	weight of evidence

1. INTRODUCTION

This baseline human health risk assessment (HHRA) work plan for the Process Areas operable unit (OU) 3 has been prepared by Ramboll Environ and Foxfire Scientific, Inc. on behalf of Atlantic Richfield Company (ARC), in partial fulfillment of the requirements of Unilateral Administrative Order (UAO), Docket number 9-2007-0005, which was issued by the U.S. Environmental Protection Agency (EPA) to ARC in January 2007 (USEPA 2007). Among other requirements, the UAO directs ARC to prepare a baseline human health risk assessment work plan for the Process Areas of the Yerington Mine Site in Yerington, Nevada (Site) (Figure 1). The HHRA work plan is provided as an addendum to the Draft Process Areas Remedial Investigation (RI) Report (Brown and Caldwell 2016).

Prior to preparing this work plan, ARC engaged with EPA in a series of three technical discussions focused on developing an OU-specific conceptual site model (CSM) and an approach for assessing exposure. Three technical memoranda were used to guide these discussions. The memoranda, updated after each discussion to reflect the agreed approaches, make up the majority of this work plan. As critical technical issues have been resolved prior to submittal, ARC anticipates efficient review and approval of the HHRA work plan in order to begin performing the HHRA as soon as practical.

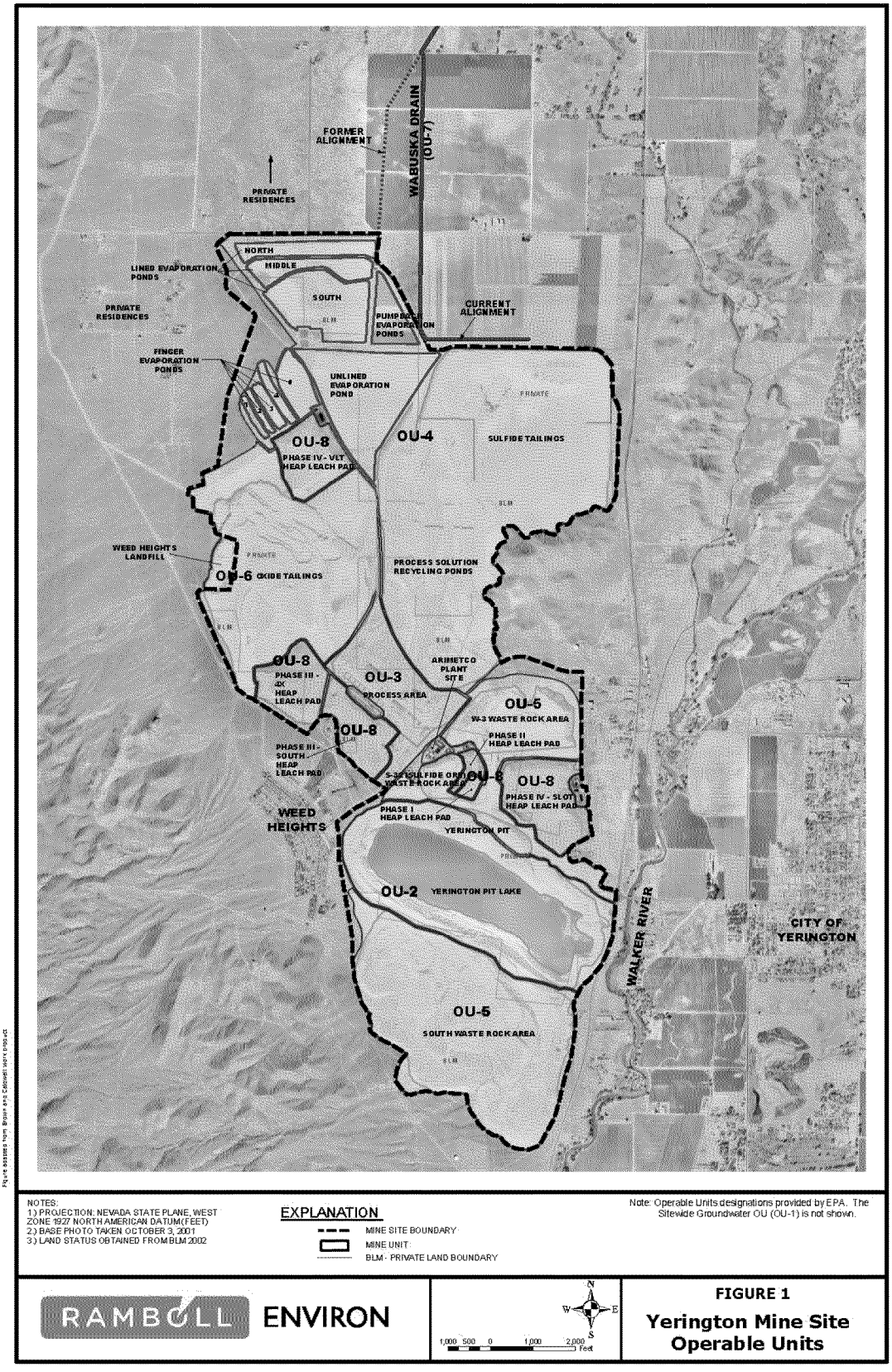
This introduction provides a brief review of the setting and history of the Site, current and future land use, the overall approach and applicable guidance followed in planning the risk assessment, and a list of sources of data that will be used. The remainder of the document consists of the following sections:

- Section 2 – Data Evaluation
- Section 3 – Conceptual Site Model
- Section 4 – Exposure Assessment
- Section 5 – Toxicity Assessment
- Section 6 – Risk Characterization
- Section 7 – Uncertainty Analysis
- Section 8 – References

Supporting information for the HHRA work plan, such as summary statistics and identification of constituents of potential concern (COPCs), exposure modelling and intake calculations, are provided in the following appendices:

- Appendix A – Data and COPC Screening for Direct Contact and Radiation Pathways
- Appendix B – Vapor Intrusion Pathway Screening and Exposure Equations & Outdoor Vapor Modelling Equations and Assumptions
- Appendix C – Integrated Exposure Uptake and Biokinetic Model (IEUBK) and Adult Lead Model (ALM) Parameters and Equations

Figure 1: Yerington Mine Site operable units



1.1 Site Background

The Yerington Mine Site is located west and northwest of the City of Yerington, in Lyon County, Nevada (Figure 1). The entire Site includes approximately 3,000 acres of land on which copper mining and processing activities took place for more than 75 years. The Process Areas is one of eight operable units defined on the Site, and encompasses approximately 137 acres of land where the majority of historical processing and ore beneficiation activities occurred.

As discussed in the *Draft Process Areas (OU-3) Soils Remedial Investigation Report* (RI; Brown and Caldwell 2016), copper in the Yerington district was discovered in the 1860s, and large-scale exploration of the porphyry copper system started in the early 1900s by the Nevada-Empire Copper Mining and Smelting Company. Anaconda Copper Mining Company (Anaconda) purchased the property in 1952. Following the purchase by Anaconda, the Weed Heights community was established as housing for mine and construction workers employed at the Site. Anaconda produced roughly 1.7 billion pounds of copper from 1953 to 1978, after which it ceased operations. During this time, approximately 360 million tons of ore and debris were removed from the open pit. Anaconda merged with an ARC subsidiary in 1977 (renamed The Anaconda Company), which was merged into ARC in 1981. ARC sold its interests in the private lands within the Site on June 30, 1978. Ore processing was re-initiated on the Site by Arimetco from 1989 to 2000. During this time, Arimetco constructed several new facilities including heap leaching pads, fluid conveyance pipelines, a solvent extraction/electro-winning plant, and collection ponds.

Detailed descriptions of the Yerington Mine Site, its ownership and operational history, and historical activities occurring within the Process Areas are provided in the *Process Areas (OU-3) Step-out Soils Characterization Data Summary Report* (DSR; Brown and Caldwell 2014a), Draft RI Report (Brown and Caldwell 2016), and within Section 9.0 of *Scope of Work for Remedial Investigation/Feasibility Studies* (Attachment A to the Administrative Order for Remedial Investigation and Feasibility Study, Docket No. 9-2007-0005) (SOW).

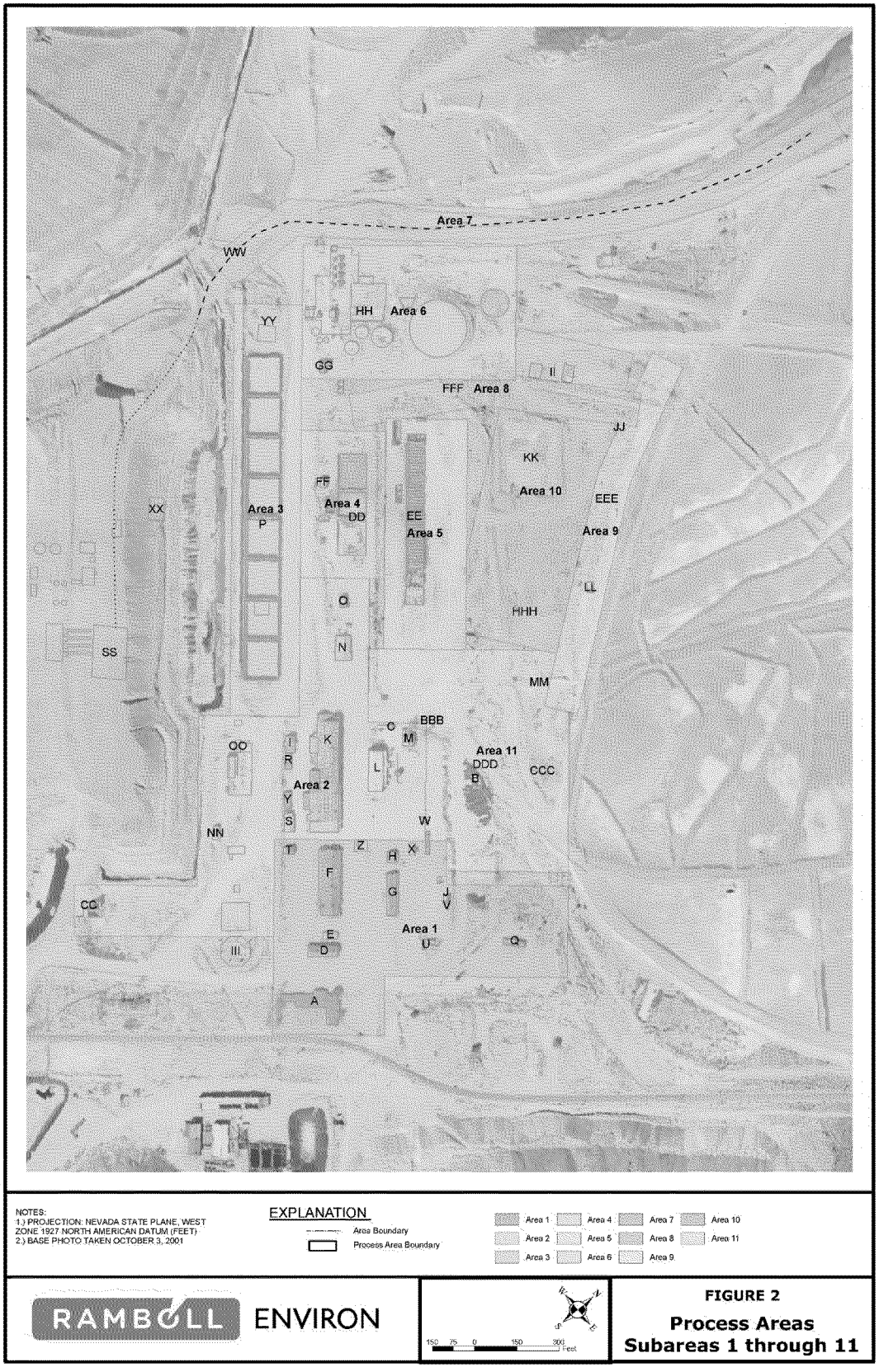
The baseline HHRA will be limited to the main Process Areas OU, bounded on the northeast by the Sulfide Tailings (OU-4), on the northwest by the Oxide Tailings (OU-6), on the southwest by the Arimetco facilities (e.g., Phase IV Heap Leach Pad and Mega Pond; OU-8), and on the southeast by Burch Drive and additional Arimetco facilities (OU-8) and waste rock areas (OU-5). The Process Areas OU is divided into 12 subareas identified in Figure 2 and listed below:

- Area 1: Administration & Maintenance
- Area 2: Truck Shops & Crushers
- Area 3: Vat Leach Tanks
- Area 4: Solution Tanks
- Area 5: Precipitation Plant
- Area 6: Sulfide Plant
- Area 7: Calcine Ditch
- Area 8: North Solution Ditch
- Area 9: East Solution Ditch
- Area 10: North Low Area
- Area 11: South Low Area
- Area 12: Peripheral Process Components

Small, peripheral Process Areas (i.e., subarea 12 features), such as crushing and pump stations located away from the main Process Areas, also will be included in the HHRA study boundary to the extent practical.

As reported in the DSR and Draft RI Report, 3,385 samples were collected and analyzed as part of the soils characterization program for OU-3. The soils investigations produced results for the following analyte classes: metals, radionuclides, total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and pesticides. Among these, metals, radionuclides, and TPH were identified as the analyte classes with the greatest frequency and magnitude of detections in soil.

Figure 2: Process Areas subareas 1 through 11



1.2 Risk Assessment Approach and Applicable Guidance

The primary objective of the baseline HHRA is to evaluate potential adverse health effects attributable to exposure to mine-related contaminants in the absence of additional remedial action. The methodology is designed to avoid underestimation of risks and will likely overestimate risks to provide a conservative basis for evaluating the need for any additional remedial action and options for future land use.

The baseline HHRA will be conducted in accordance with national guidance, including but not limited to:

- Risk Assessment Guidance for Superfund, Human Health Evaluation Manual, Parts A, E, and F (USEPA 1989; USEPA 2004b; USEPA 2009a)
- Guidance for Data Usability in Risk Assessment, Parts A and B (USEPA 1992)
- Soil Screening Guidance for Radionuclides (USEPA 2000a,b)
- Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (USEPA 2002a).
- User's Guide for Evaluating Subsurface Vapor Intrusion Into Buildings (USEPA 2004a)

The exposure scenarios evaluated in the HHRA will be based on the OU-3-specific CSM, developed in consultation with EPA during work plan preparation. The CSM, presented in this HHRA work plan, and list of COPCs to be evaluated within the Process Areas OU will lay the foundation for the exposure and toxicity assessment portions of the risk assessment. The exposure assessment will quantify the potential intake of COPCs for each population via significant, complete exposure pathways, while the toxicity assessment will provide an estimate of the toxicity or activity of COPCs. The risk characterization will combine information from the exposure and toxicity assessments to provide estimates of potential risk to human populations, and the uncertainties identified throughout the process will be discussed in the final component, the uncertainty assessment.

2. DATA EVALUATION

The objective of the data evaluation procedure is to define appropriate data that are relevant and of acceptable quality for use in the HHRA. The first step is to compile all available data for the Site and select the datasets that are relevant for characterizing Process Areas conditions and assessing potential risks. The second step is to develop data quality criteria to assess the usability of individual data within these datasets for risk assessment purposes. The third step is to individually evaluate all selected data according to those criteria. Once data are evaluated for usability, they will be summarized with respect to location and numbers of samples collected. Finally, the selected dataset is used in the HHRA to assess risks.

2.1 Sources of Environmental Data to be Used in the HHRA

Data from previous Process Areas investigations and background soil and radionuclide investigations will be included in the baseline HHRA. This includes 3,385 soil geochemical samples, four sediment samples, and seven surface water samples. Of the soil samples, 1,118 were collected in the 2004-2005 investigation and 2,267 were collected in the 2013-2014 investigation. Sediment samples were collected in the 2010-2013 subsurface utility and dry well investigation, and surface water samples were collected during the 2013-2014 investigation. These investigations are described in *Data Summary Report for Process Areas Soil Characterization* (Brown and Caldwell 2005a), *Review of Yerington Mine Characterization Activities* (TRG 2004), *Background Soils Data Summary Report* (Brown and Caldwell 2009), and *Process Areas (OU-3) Step-out Soils Characterization, Data Summary Report* (Brown and Caldwell 2014a). The data collected in these investigations will be used in the HHRA. Use of data is described in the remainder of this section.

2.2 Data Evaluation and Selection Criteria

Analytical data collected from the Process Areas and background reference areas during previous sample collection events are relevant for the risk assessment. Analytes selected for these investigations are based on chemicals thought or known to have been associated with historical operations, including metals, TPH, PCBs, and others. A comprehensive list of analytes evaluated is provided in the *Process Areas (OU-3) RI Work Plan* (Brown and Caldwell 2007).

Relevant data that meet the established quality criteria outlined in the *Site Quality Assurance Project Plan* (QAPP; ESI and Brown and Caldwell 2007) were considered for use in the risk assessment. These data were evaluated according to *Guidance for Data Usability for Risk Assessment* (USEPA 1992), which provides minimum data requirements to ensure that data will be appropriate for risk assessment use. The guidance addresses the following primary issues pertinent to assessing data quality for risk assessment:

- Data sources—Evaluate the type of data collected (e.g., screening data, fixed laboratory data) and whether quality assurance/quality control (QA/QC) samples are available for the data to provide data quality information.
- Consistency of data collection methods—Evaluate sample collection methods for appropriateness for the chemical, media, and analysis; review field logs to assess quality of sample collection; and determine if differences in sample collection exist between different sampling events and investigations.
- Analytical methods and detection limits—Evaluate methods for appropriateness and sensitivity and determine if detection limits are low enough for risk-based screening; evaluate results with elevated detection limits for relevance.
- Data quality indicators—Review data validation reports for data quality issues.

- Background samples—Assess whether appropriate quantity and location of background samples were collected.

The process of compiling available data and evaluating analytical results with respect to the Site-wide QAPP and usability considerations defined by EPA (1992) was completed as part of the DSR and draft RI reporting and as part of this HHRA work planning process. The majority of analytical results were deemed acceptable by the data quality assessment and are described below.

2.3 Risk Assessment Data Selection Considerations

This section describes how the analytical results from the datasets will be evaluated and selected for the risk assessment. Specifically, the treatment of detected and undetected results, data qualifiers, and duplicate samples is described.

2.3.1 Detected Analytical Results

Detected results may be qualified because of QA/QC problems encountered during the laboratory analysis and identified during the validation process. These problems are typical with site investigation data and are usually associated with chemical identity and/or concentration (USEPA 1989).

Data qualifiers are described in detail in the QAPP and are discussed here briefly as they relate to use of the data. The "J" qualifier indicates that the chemical identity is certain, but the concentration is estimated by the laboratory. Because of a high degree of certainty in the identity of the chemical, all results flagged with a "J" qualifier will be included in the quantitative risk assessment. However, inclusion of estimated concentrations adds uncertainty to the risk assessment results. All results flagged with "R," indicating rejection of the data during the data validation process, will be excluded from the risk assessment.

In some instances, more than one analytical method was used to analyze a constituent at a single sampling location. In these cases, the analytical method with the lower detection limit will be selected and the data from that analytical method will be used in the analysis. Results from the other analytical method(s) will be excluded from the risk assessment.

2.3.2 Non-Detected Data

Non-radionuclide results that are flagged with a "U" qualifier will be reported as "<X," where "X" is the method detection limit. If an analyte is not detected in any samples for a particular medium, then it will be assumed that the chemical is not present in that medium at the Site, and the chemical will be dropped from further consideration in the risk assessment. The method detection limit is the lowest concentration that can be seen above the normal "noise" associated with the analytical method (USEPA 1989).

2.3.3 Treatment of Radionuclide Data

For radionuclide analyses, results not rejected during data validation will be retained for use in the risk assessment. This includes results that are less than the sample-specific minimum detectable activity, including zero and negative results. The results, associated measurement error, and sample-specific minimum detectable activity data will be retained, per the QAPP (ESI and Brown and Caldwell 2007).

2.3.4 Treatment of Duplicate Samples

As part of the QA/QC process, field duplicates were collected with a subset of investigative samples. Results of duplicate analyses were compared to investigative samples as part of the QA/QC evaluation. Following this comparison and assessment of data quality, duplicate QA

samples were removed from the database and will not be considered in the risk assessment; only investigative samples will be included in the risk assessment database.

2.3.5 Additional Considerations

In addition to the data evaluation steps described above, the following Site-specific issues were considered:

- Following the 2004-2005 sampling, TENORM soils were excavated from six sampling locations within Subareas 4 (solution tanks) and 10 (north low area) from the surface to depths of two or three feet below ground surface (bgs). The records corresponding to these sampling locations and depths have been removed from the dataset.
- Four surface samples collected from Subarea 2 (truck shop and crushers) and Subarea 5 (precipitation plant) will be excluded from the analysis. These samples were assigned a start and end depth of zero, which differs from the rest of the samples which were collected below ground surface.
- Vat leach tailings (VLT) material is present at the site; considerations specific to VLT are described in Section 2.4 and Section 4.2.1.1.

2.4 Proposed Soil and Other Media Sampling Data

Soil data relevant to human exposures within OU-3 will be used in the HHRA, which consists of soil from surface to 15 feet bgs. People are not assumed to contact soils deeper than 15 feet bgs[1]. There are 693 sampling locations among the 12 subareas in OU-3 that will be evaluated in the HHRA. A list of all analytes evaluated, by subarea, is provided in Appendix A.

In addition to soil, the VLT, also referred to as oxide tailings or spent ore, are present throughout much of the Process Areas OU. The VLT from the Oxide Tailings (OU-6) were placed in OU-3 as a temporary cap after mining operations ceased. The extent and depth of VLT in the Process Areas is mapped in Figure 3, and geochemical summary statistics are listed in Table 1. VLT samples have not been collected from OU-3 specifically; however, VLT samples (n=49) from the Oxide Tailings OU are available that are representative of the VLT in OU-3 (ARC 2010). The VLT materials are considered relatively homogenous, with localized variations resulting from differences in oxide ore types mined and leached by Anaconda Mining Company and variations in the ore beneficiation process (ARC 2010). The incorporation of analytical data representing VLT with the OU-3 soils data is discussed in Section 4.2.1.1.

Sediment samples collected from pipes and water grab samples were drawn from within structures or pipes that are not continuous exposure areas and will not be included in the HHRA. Data for these samples will be compared to EPA regional screening levels (RSLs) as requested by Dr. Sophia Serda, EPA toxicologist, during a meeting with ARC on January 27, 2015. The results of the comparison to RSLs will be provided in the HHRA report.

[1] Analytical results for soils below 15 feet bgs were previously screened by subarea using EPA Residential and Industrial regional screening levels; results are presented in the DSR (Brown and Caldwell 2014a) and the Draft RI Report (Brown and Caldwell 2016).

Figure 3: Thickness of VLT across Process Areas OU

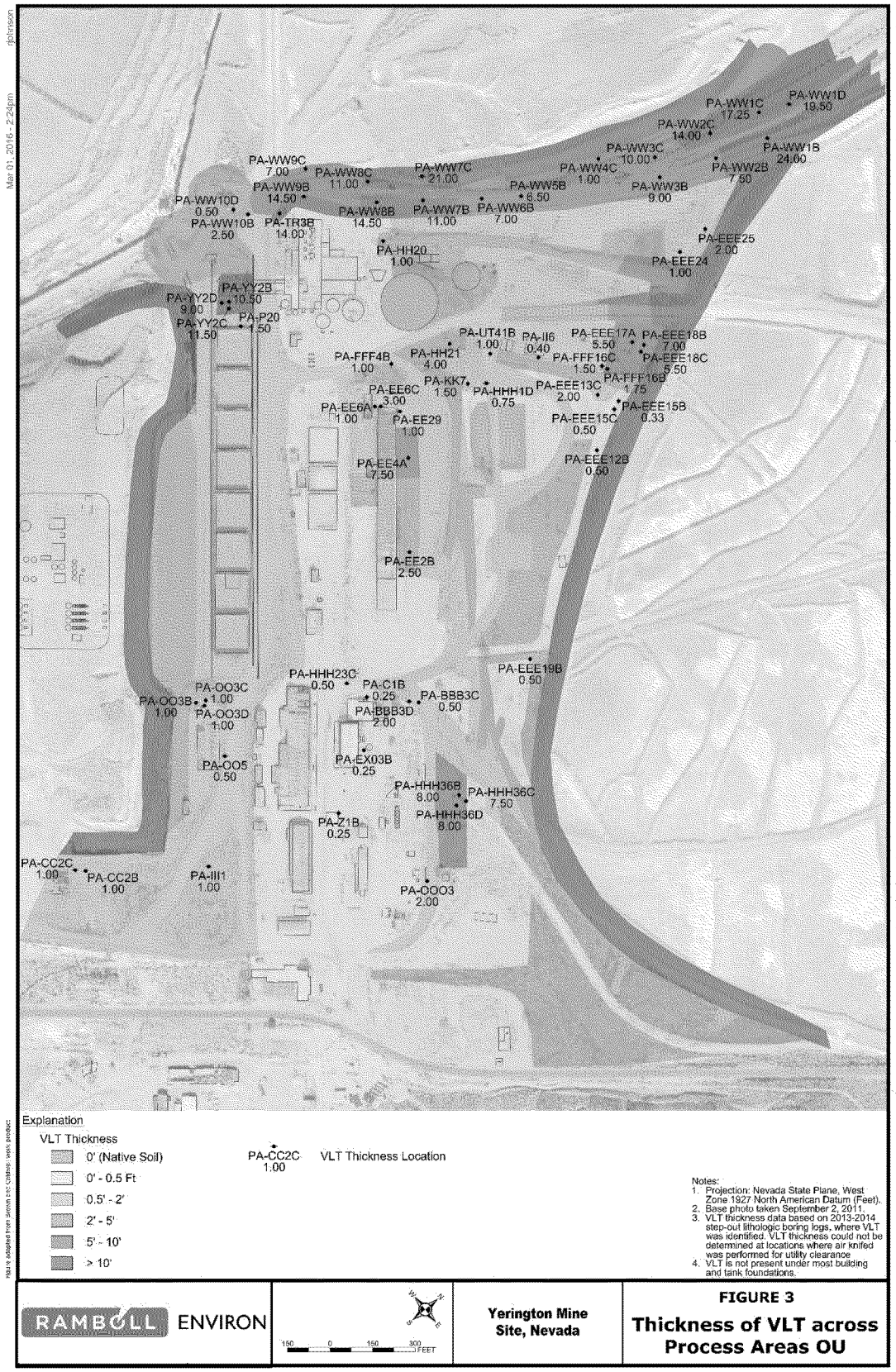


Table 1: VLT metals and radionuclide data for the Process Areas

	N	Minimum Detect	Maximum Detect	Mean Detect
Metals (mg/kg)				
Aluminum	49	3,300	16,000	7,704
Antimony	49	0.37	12	1.7
Arsenic	49	2.7	17	6.4
Barium	49	30	140	60
Beryllium	49	0.13	0.33	0.14
Boron	52	0.1	4.5	1.09
Cadmium	49	0.13	0.13	0.13
Calcium	52	1,300	6,700	3,265
Chromium	49	11	40	23
Cobalt	49	2.1	9.6	3.9
Copper	52	349	1,700	961
Iron	52	4.1	19,000	11,266
Lead	49	2.1	5.7	3.3
Magnesium	52	274	12,000	5,803
Manganese	52	4.4	75	44
Mercury	49	0.044	0.93	0.24
Molybdenum	49	0.6	5.5	2.8
Nickel	49	5.5	25	9.0
Potassium	52	52	4,200	1,170
Selenium	49	1.4	9.1	3.3
Silver	49	0.13	0.27	0.13
Sodium	52	45	380	139
Thallium	49	0.25	1.6	0.36
Thorium	59	3.5	13	6.4
Tranium	59	0.66	3.8	1.5
Vanadium	49	12	55	23
Zinc	52	0.4	1,800	46
Radionuclides (pCi/g)				
Radium-226	10	2.1	8.5	3.7
Radium-228	10	0.84	1.7	1.2

Notes:
VLT= vat leach tailings; mg/kg= milligrams per kilogram; pCi/g= pico Curies per gram

2.5 Evaluation of Background Concentrations

The term "background concentrations" refers to concentrations of substances present in the environment that are not influenced by releases from the site under investigation and that are either naturally occurring or from anthropogenic sources (USEPA 2002a). The naturally occurring concentrations of substances reflect concentrations that have not been influenced by human activity. Anthropogenic sources reflecting human activities unrelated to mining and mineral processing may also contribute to background concentrations, yielding higher background concentrations than naturally occurring concentrations.

The term "reference" generally refers to a relatively uncontaminated area that is suitable for sampling to evaluate background constituent concentrations. Such areas are typically identified as "background reference areas" by EPA (2002a). According to the EPA's *Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites* (2002a), a background investigation is appropriate when certain constituents that pose risks and may drive an action are believed to be attributable to background. Similarly, EPA (1989) maintains the importance of using background samples to distinguish between onsite sources of radionuclide contaminants from radionuclides expected normally in the environment[2].

Samples from multiple background reference areas have been collected to differentiate the natural or anthropogenic background constituent concentrations from those associated with releases at the Site. Figure 4 shows the location of the background soils investigations denoted by areas A-1 and A-2 (Brown and Caldwell 2009). Background samples were analyzed for metals and radionuclides. General procedures for evaluating the background dataset for use in this risk assessment were identical to those for Site data and are consistent with procedures outlined in the Process Areas RI Work Plan (Brown and Caldwell 2007).

Upon review of the data, Subarea A-2 was selected as an appropriate background soils dataset for the Process Areas. The rock in this area contains elevated concentrations of base metals and minerals, making it comparable to soils located at the Yerington Mine Site. In fact, the mining operations occurred in the outcrops of the same source rock that is present in Subarea A-2 (Brown and Caldwell 2009). Background metals concentrations are defined by the 90 percent Chebychev upper prediction limits (UPLs), which are the upper boundary (with 90 percent confidence) of a prediction interval for an independently obtained observation (USEPA 2016a). UPLs were calculated using EPA's ProUCL software, or the highest reporting limit was selected if there were fewer than three detected values in the data set (Brown and Caldwell 2009).

Subarea A-2 background UPLs for all metals and radionuclides are presented with Process Areas soils concentrations in Table 2. Among metals and radionuclides presented in Table 2, Process Areas-wide mean concentrations of copper, mercury, and selenium are greater than A-2 background concentrations; mean concentrations for all other metals and radionuclides are below A-2 BCLs. Additional comparisons between BCLs and Process Areas soils, by subarea, will be provided in the baseline HHRA report. For metals and radionuclide subarea concentrations that are equal to or lower than BCLs, subarea risks will be consistent with background exposures and will not be subject to risk management actions.

[2] *See also* 40 C.F.R. § 30.400(a)(1), which states that a remedial action under section 104 of CERCLA shall not be undertaken in response to a release of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found.

Figure 4: Background soil sampling locations

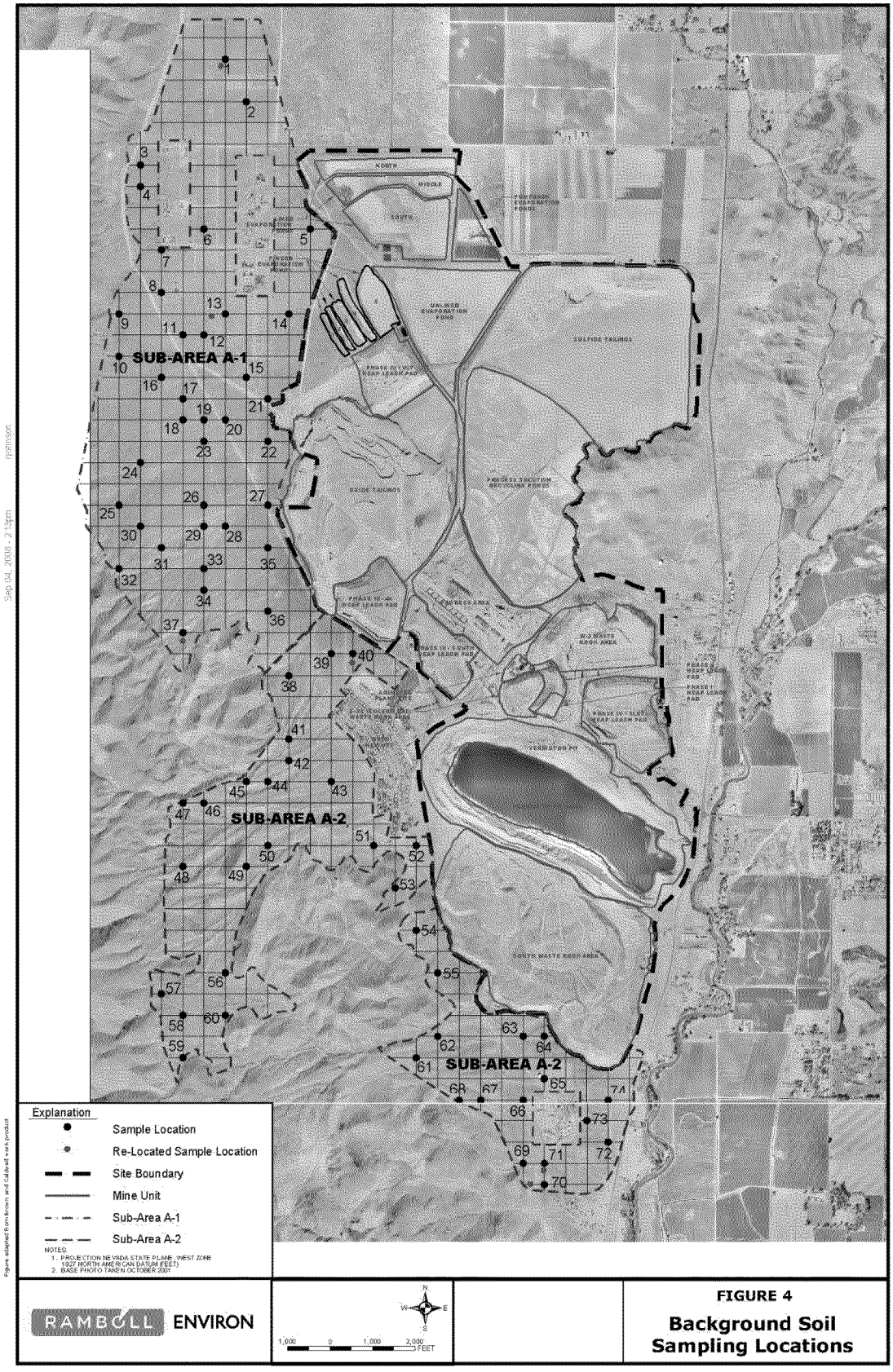


Table 2: Background and Site soil concentrations

	Process Areas Soils			Background Soils[a]
Constituent	**Min**	**Mean**	**Max**	**A-2**
Metals (mg/kg)				
Aluminum	300	5,914	19,000	25,436
Antimony	0.021	0.48	16	1.8
Arsenic	0.38	6.9	410	17
Barium	13	57.4	400	310
Beryllium	0.00415	0.26	0.73	1.3
Boron	0.0026	2.7	26	21
Cadmium	0.0255	0.26	2.5	0.35
Calcium	330	5,885	52,000	46,625
Chromium	0.42	6.3	180	19
Cobalt	0.06	3.8	41	15
Copper	3.6	680	170,000	285
Iron	1.2	12,212	95,000	28,465
Lead	1.2	12	1,500	13
Magnesium	55	3,155	18,000	9,889
Manganese	2.9	155	790	729
Mercury	0.00001	0.11	7.9	0.05
Molybdenum	0.01	1.06	20	3.3
Nickel	0.08	5.2	82	18
Potassium	25	1,319	5,100	5,229
Selenium	0.08	1.2	82	0.87
Silver	0.0006	0.12	4.2	0.58
Sodium	36	349	7,900	2,407
Thallium	0.001	0.28	40	0.6
Thorium	0.25	9.2	241	19
Uranium	0.131	3.1	150	4.1
Vanadium	1.8	17.9	79	65
Zinc	1.3	30.0	7,100	62
Radionuclides (pCi/g)				
Radium-226	0.1	1.3	9.02	2.44
Radium-228	0.1	1.5	24.4	2.13

Notes:

[a] Background soils UPLs are equal to the 90 percent Chebychev UPL calculated using EPA's ProUCL software

2.6 Identification of Constituents of Potential Concern

Over 200 analytes were evaluated in the remedial investigation, many of which were never or infrequently detected or were detected at very low concentrations. The total list of analytes evaluated in the remedial investigation was refined to focus the HHRA on those constituents that are most likely attributable to historic mining activities and that may present a cumulative risk to people contacting Process Areas soil. The process of identifying COPCs relies on consideration of historical operating practices and analytical data evaluation steps that are outlined in EPA guidance (USEPA 1989). The COPC identification process applied to the OU-3 data was discussed between EPA and ARC during a meeting on June 1, 2016 and is presented in the following sections.

2.6.1 Frequency of Detection

The first step in identifying COPCs involves assessing the frequency of detection for all analytes (USEPA 1989). Analytes that were not detected in any sample were not further evaluated in the COPC identification process. Additionally, analytes with a frequency of detection below 5 percent were considered for elimination as COPCs because they are likely attributable to laboratory contamination, are an artifact of the sampling methodology, or are not site-related. Rarely detected constituents (i.e., constituents with a frequency of detection less than 5 percent) were only eliminated when concentrations were low (i.e., below residential screening levels) and did not appear to represent spatially-isolated and infrequent mine-related detections. The steps for identifying mine-related, low occurrence COPCs are described in Section 2.6.4.

2.6.2 Evaluation of Essential Nutrients

Some naturally-occurring substances in the environment are beneficial to human life. EPA guidance (USEPA 1989) recommends removing substances from further consideration if they are generally considered "essential human nutrients," are naturally present at low concentrations, and are toxic only at very high doses. Constituents selected as essential nutrients should be present at concentrations below or only slightly greater than background levels, and not attributable to site activities. The essential nutrients magnesium, calcium, sodium, and potassium were excluded from the COPC selection process. While iron is an essential nutrient, it is also associated with historic mining activities and was not eliminated from consideration for the HHRA.

2.6.3 Use of Risk-Based Screening Levels

Analytical data were compared to risk-based screening levels to refine the list of COPCs that will be evaluated in the HHRA. This step is included because a large number of constituents were detected in the Process Areas at low concentrations that will not contribute appreciably to cumulative risks. Use of a risk-based screening step can demonstrate the low potential risk for some constituents, demonstrating no need for further evaluation, while reducing the complexity of the HHRA and focusing on the COPCs that are most likely to present a risk to human health.

For this step, the maximum detected constituent concentrations in Process Areas soils were compared to screening levels relevant to residential land use. Although current and future land use will remain industrial, residential RSLs were used at EPA's request to provide a health-protective approach in the absence of an environmental covenant restricting residential development within OU-3.

The screening levels used in identifying non-radionuclide COPCs and screening results are described in Section 2.6.3.1. In addition, analytical results for SVOCs and VOCs in soils were compared to soil screening levels protective of soil gases volatilizing to indoor air, referred to as the 'vapor intrusion pathway.' Radionuclides were assessed via the internal and external radiation pathway, as described in Section 2.6.3.2. The vapor intrusion screening levels and

results of the screening are described in Section 2.6.3.3. Comparison of subarea concentrations to BCLs will be provided in the HHRA report to identify those metals and radionuclides with concentrations consistent with area background levels. Risks calculated for metals and radionuclides that are identified as COPCs and are also below BCLs will be discussed apart from other COPCs that are not associated with background.

2.6.3.1 Risk-based Soil Screening Results for Non-radionuclides

EPA residential soil risk-based screening levels (RSLs) were used to identify COPCs for each subarea (USEPA 2016b). Residential soil RSLs are derived using a de minimis cancer risk level of 1 in 1,000,000 (1E-06) and a target noncancer hazard quotient of 0.1 or 1, and account for combined exposures via incidental ingestion of soil, dermal contact with soil, and inhalation of particulates or vapors. With respect to use of a target hazard quotient, EPA's website states to "use the levels appropriate for your region;" EPA Region 9 has indicated a preference for a target quotient of 0.1. Use of a target hazard quotient target of 0.1 with residential RSLs is highly protective given that reclamation of the Process Areas for residential use is improbable.

For a relatively few analytical results, sample detection limits were greater than the analyte's respective RSL. Analytes with elevated detection limits are listed in Table 3. Of the analytes listed in Table 3, dibenz(a,h)anthracene, benzo(a)pyrene, thallium, benzo(b)fluoranthene, N-nitroso-di-n-propylamine, and indeno(1,2,3-c,d)pyrene will be retained in the HHRA due to elevated detected results.

Table 3: Analytes with high number of samples where the detection limit exceeds the screening level

Analyte	Percent ND	Count of Samples Exceeding RSL	Percent ND Samples where DL Exceeds RSL	Percent ND Samples where DL is Below RSL	Percent Detected Samples Exceeding RSL
N-Nitrosodimethylamine	100%	253	100%	0%	NA
Dibenz(a,h)anthracene	99%	893	70%	29%	0.4%
Benzo(a)pyrene	99%	648	51%	48%	0.7%
Thallium	55%	804	47%	8%	21%
Benzo(b)fluoranthene	98%	413	32%	66%	0.6%
N-Nitroso-di-n-propylamine	100%	217	17%	83%	0.08%
Hexachlorocyclopentadiene	100%	194	15%	85%	NA
Hexachlorobenzene	100%	162	13%	87%	NA
Indeno(1,2,3-c,d)pyrene	99%	151	12%	87%	0.2%

Notes: RSL= EPA Regional Screening Level for residential soils assuming HQ of 0.1, cancer risk of 1E-06; ND= Non-detect; DL= Detection limit; NA= Not applicable

Hexachlorocyclopentadiene and hexachlorobenzene were never detected, and a limited number of detection limits are greater than their respective RSLs. These constituents were not retained as COPCs. The average result (consisting of all non-detect results) of hexachlorobenzene is 0.066 mg/kg, which is substantially lower than the residential RSL of 0.21 mg/kg. Similarly, the average hexachlorocyclopentadiene result is 0.11 mg/kg, lower than the RSL of 0.34 mg/kg. These analytes were also assessed spatially to understand the impact of the elevated detection

limits on site characterization. Samples with elevated detection limits are near other samples where the detection limits was less than the RSL. The spatial distribution of the points indicated that it was unlikely that hexachlorobenzene and hexachlorocyclopentadiene would be present at concentrations greater than the detection limit, even if a lower detection limit had been achieved. These two analytes are likely present at very low levels at the site (or not at all) and thus do not pose a potential human health risk.

N-Nitrosodimethylamine (NDMA) was never detected, and the detection limit is greater than the RSL in all samples. This lack of information is considered a data gap, but not a data need. NDMA is not currently used in the United States at this time, but was formerly used in the production of liquid rocket fuel, antioxidants, and softeners for copolymers. Even though NDMA is no longer in use, it can accidentally be released into the environment as a byproduct when alkylamines are reacted with nitrogen. Industries utilizing these reactions include tanneries, pesticide manufacturers, rubber and tire manufacturers, foundries, and dye manufacturers (USEPA 2014a). NDMA is also found at low levels in processed foods, particularly cured meat, smoked fish, and beer (WHO 2002). Additionally, NDMA can be a byproduct of drinking water disinfection in treatment plants that use chloramines (USEPA 2014a). The copper mining and ore processing taking place at the Yerington Process Areas are unlikely to have been a source of NDMA to the environment. Additionally, NDMA is primarily a drinking water contaminant of concern because it is highly mobile in subsurface soil and has the potential to leach into groundwater (USEPA 2014a). For these reasons, NDMA is unlikely to be present in the soils of the Process Areas at levels that pose a risk to human health.

In addition to the analytes listed in Table 3, there are 49 analytes for which the detection limit exceeded the screening level less than 10 percent of the time. Because the majority of the samples for these 49 analytes were either detected, or classified as non-detects below the screening level, the data were considered adequate for use in risk assessment.

For all remaining analytes, the maximum detected concentrations were compared to residential soil RSLs. Analytes for which no RSL was available were compared to Subarea A-2 background soil concentrations or to a surrogate constituent, when appropriate. The constituents in Table 4 were screened using the specified surrogate constituent's screening level.

Table 4: Surrogate constituents used for screening

Constituent	Surrogate
Gasoline range organics (C4-C12)	Total petroleum hydrocarbons (Aromatic Low)
Diesel range organics (C13-C22)	Total petroleum hydrocarbons (Aromatic Low)
Motor oil range organics (C23-C40)	Total petroleum hydrocarbons (Aromatic Low)
Alpha Endosulfan	Endosulfan
Beta Endosulfan	Endosulfan
Endosulfan sulfate	Endosulfan
BHC, delta	BHC, gamma (Lindane)
Chlordane, alpha	Chlordane
Chlordane, gamma	Chlordane
Endrin aldehyde	Endrin
Endrin ketone	Endrin
Acenaphthylene	Acenaphthene
Phenanthrene	Anthracene
1,1-Dichloropropene	1,3-Dichloropropene
Sec-Butylbenzene	n-Butylbenzene
Tert-butylbenzene	n-Butylbenzene

RSLs and soil geochemical data used in comparison to the RSLs are provided in Appendix A. Screening was performed using soils collected from a depth of 0-2 feet bgs and for soils collected from a depth of 0-15 feet bgs, resulting in COPCs that vary slightly between soil depth intervals. Analytes for which the maximum subarea concentration is greater than the RSL were retained as COPCs and will be evaluated in the HHRA. A list of COPCs retained, by subarea, for the 0-2 feet bgs and 0-15 feet bgs depths are identified with a "Y" for "yes" in Table 5 and Table 6, respectively. Analytes included in the table were detected in at least five percent of samples within a subarea; see Table A-1 in Appendix A for analytes detected in fewer than 5 percent of samples. COPCs identified in the tables by "IO" for isolated occurrence within a subarea are addressed in Section 2.6.4. Blank cells indicate that the analyte was not identified as a COPC for a particular subarea.

2.6.3.2 Screening of Radionuclides

Radionuclides were screened using the residential preliminary remediation goals (PRGs) for radionuclides. The PRGs were calculated with EPA's on-line PRG calculator using default exposure assumptions, assuming no cover, and assuming the largest available slab size (1E+06m^2) to normalize the area correction factor. The PRGs are listed in Appendix A. Radium-226 and radium-228 were screened for radioactivity in units of pico-Curies per gram (pCi/g). Uranium and thorium were screened in units of mg/kg, using PRGs that reflect activity levels of 0.0479 pCi/g and 0.0463 pCi/g, respectively. All radionuclides were above screening levels in all subareas, and will be retained as COPCs in the HHRA. Screening results are presented in Table 5 and Table 6.

Table 5: COPCs retained after screening to be evaluated in the HHRA, 0-2 feet below ground surface

Analyte Class	Analyte	Subareas											
		1	2	3	4	5	6	7	8	9	10	11	12
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)												
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)												
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)												
Metals	Aluminum	Y	Y	Y	Y		Y		Y	Y	Y	Y	Y
Metals	Antimony	Y	Y				Y	Y	Y	Y	Y	Y	
Metals	Arsenic	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Metals	Barium												
Metals	Beryllium												
Metals	Boron												
Metals	Cadmium												
Metals	Chromium												
Metals	Cobalt	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Metals	Copper	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Metals	Iron	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Metals	Lead	Y	Y			Y							
Metals	Manganese	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Metals	Mercury		Y		Y	Y			Y	Y	Y	Y	
Metals	Molybdenum												
Metals	Nickel												
Metals	Selenium		Y										
Metals	Silver												
Metals	Thallium	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Metals	Uranium					Y		Y	Y	Y			
Metals	Vanadium	Y								Y	Y		
Metals	Zinc	Y	Y										
PCBs	Aroclor 1242												
PCBs	Aroclor 1254				IO								
PCBs	Aroclor 1248								IO				
PCBs	Aroclor 1260												
Pesticides	4,4'-DDD												
Pesticides	4,4'-DDE												
Pesticides	4,4'-DDT		Y							Y			
Pesticides	Aldrin												
Pesticides	alpha Endosulfan (Endosulfan I)												
Pesticides	beta Endosulfan (Endosulfan II)												
Pesticides	BHC, alpha												
Pesticides	BHC, beta												
Pesticides	BHC, delta												
Pesticides	BHC, gamma (Lindane)												
Pesticides	Chlordane, alpha												
Pesticides	Chlordane, gamma												
Pesticides	Dieldrin												
Pesticides	Endosulfan sulfate												
Pesticides	Endrin												
Pesticides	Endrin aldehyde												
Pesticides	Endrin ketone												
Pesticides	Heptachlor												

Table 5: COPCs retained after screening to be evaluated in the HHRA, 0-2 feet below ground surface

Analyte Class	Analyte	Subareas											
		1	2	3	4	5	6	7	8	9	10	11	12
Pesticides	Heptachlor epoxide												
Pesticides	Methoxychlor												
TPH	Diesel Range Organics (C13-C22)	Y	Y		Y	Y	Y		Y	Y	Y	Y	Y
TPH	Gasoline Range Organics (C4-C12)	Y	Y									Y	
TPH	Motor Oil Range Organics (C23-C40)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SVOC	2-Methylnaphthalene												
SVOC	Acenaphthene												
SVOC	Acenaphthylene												
SVOC	Anthracene												
SVOC	Benzo(a)anthracene				IO		IO			IO			
SVOC	Benzo(a)pyrene				IO		IO			IO			
SVOC	Benzo(b)fluoranthene				IO		IO					IO	
SVOC	Benzo(k)fluoranthene												
SVOC	Benzoic acid												
SVOC	Benzyl butyl phthalate												
SVOC	bis(2-Ethylhexyl)phthalate												
SVOC	Chrysene												
SVOC	Dibenz(a,h)anthracene				IO		IO						
SVOC	Dibenzofuran												
SVOC	Diethyl phthalate												
SVOC	di-n-Butyl phthalate												
SVOC	Fluoranthene												
SVOC	Fluorene												
SVOC	Indeno(1,2,3-c,d)pyrene				IO								
SVOC	Phenanthrene												
SVOC	Pyrene												
VOC	1,1,2-Trichloroethane												
VOC	1,1-Dichloroethene												
VOC	1,2,4-Trimethylbenzene											IO	
VOC	1,2-Dibromo-3-chloropropane (DBCP)											IO	
VOC	1,2-Dimethylbenzene (o-Xylene)												
VOC	1,3,5-Trimethylbenzene (mesitylene)												
VOC	1,3-Dichloropropane												
VOC	2-Butanone (MEK)												
VOC	Acetone												
VOC	Benzene												
VOC	Bromoform												
VOC	Chloromethane												
VOC	Dichlorodifluoromethane (Freon 12)												
VOC	Ethylbenzene												
VOC	Isopropylbenzene (Cumene)												
VOC	Methylene chloride												
VOC	Naphthalene												
VOC	n-Butylbenzene												
VOC	n-Propylbenzene												
VOC	sec-Butylbenzene												
VOC	Styrene												
VOC	Tetrachloroethene (PCE)												
VOC	Toluene												

Table 5: COPCs retained after screening to be evaluated in the HHRA, 0-2 feet below ground surface

Analyte Class	Analyte	Subareas											
		1	2	3	4	5	6	7	8	9	10	11	12
VOC	Trichloroethene (TCE)												
VOC	Trichlorofluoromethane (Freon 11)												
VOC	Xylenes, total												
Radionuclides	Radium-226	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Radionuclides	Radium-228	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Radionuclides	Thorium	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Radionuclides	Uranium	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Notes:
COPC= Chemicals of potential concern
Y=retained for subarea risk assessment; IO=retained, limited occurrence; Blank cell indicates analyte not retained as COPC
Analytes in table were detected in 5% or more samples by subarea in 0-2 foot depth, or were identified as "IO"

Table 6: COPCs retained after screening to be evaluated in the HHRA, 0-15 feet below ground surface

Analyte Class	Analyte	Subareas											
		1	2	3	4	5	6	7	8	9	10	11	12
Herbicides	2-(2-Methyl-4-chlorophenoxy) propionic acid (MCPP)						IO						
Metals	Aluminum	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Metals	Antimony	Y	Y				Y	Y	Y	Y	Y	Y	
Metals	Arsenic	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Metals	Barium												
Metals	Beryllium												
Metals	Boron												
Metals	Cadmium												
Metals	Chromium												
Metals	Cobalt	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Metals	Copper	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Metals	Iron	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Metals	Lead	Y	Y			Y						Y	
Metals	Manganese	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Metals	Mercury		Y		Y	Y		Y	Y	Y	Y	Y	
Metals	Molybdenum												
Metals	Nickel												
Metals	Selenium		Y										
Metals	Silver												
Metals	Thallium	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Metals	Uranium		Y			Y		Y	Y	Y	Y	Y	
Metals	Vanadium	Y				Y	Y	Y	Y	Y	Y	Y	Y
Metals	Zinc	Y	Y										
PCBs	Aroclor 1254				IO								
PCBs	Aroclor 1248								IO				
PCBs	Aroclor 1016									IO			
PCBs	Aroclor 1260									IO			
Pesticides	4,4'-DDD												
Pesticides	4,4'-DDE												
Pesticides	4,4'-DDT		Y							Y			
Pesticides	Aldrin												
Pesticides	alpha Endosulfan (Endosulfan I)												
Pesticides	BHC, alpha												
Pesticides	BHC, beta												
Pesticides	BHC, gamma (Lindane)												
Pesticides	Chlordane, alpha												
Pesticides	Chlordane, gamma												
Pesticides	Dieldrin											IO	
Pesticides	Endosulfan sulfate												
Pesticides	Endrin												
Pesticides	Endrin ketone												
Pesticides	Heptachlor												
Pesticides	Heptachlor epoxide												

Table 6: COPCs retained after screening to be evaluated in the HHRA, 0-15 feet below ground surface

Analyte Class	Analyte	Subareas											
		1	2	3	4	5	6	7	8	9	10	11	12
Pesticides	Methoxychlor												
Pesticides	Toxaphene												
TPH	Diesel Range Organics (C13-C22)	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y
TPH	Gasoline Range Organics (C4-C12)	Y	Y							IO		Y	
TPH	Motor Oil Range Organics (C23-C40)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SVOC	2-Methylnaphthalene	IO											
SVOC	Acenaphthylene												
SVOC	Benzo(a)anthracene				IO		IO			IO			
SVOC	Benzo(a)pyrene				IO	IO	IO			IO			
SVOC	Benzo(b)fluoranthene				IO		IO					IO	
SVOC	Benzo(k)fluoranthene												
SVOC	Benzoic acid												
SVOC	Benzyl butyl phthalate												
SVOC	bis(2-Ethylhexyl)phthalate												
SVOC	Chrysene												
SVOC	Dibenz(a,h)anthracene				IO		IO					IO	
SVOC	Diethyl phthalate												
SVOC	di-n-Butyl phthalate												
SVOC	Fluoranthene												
SVOC	Indeno(1,2,3-c,d)pyrene				IO							IO	
SVOC	N-Nitroso-di-n-propylamine								IO				
SVOC	Phenanthrene												
SVOC	Pyrene												
VOC	1,2,3-Trichloropropane	IO											
VOC	1,2,4-Trimethylbenzene	Y										IO	
VOC	1,2-Dibromo-3-chloropropane (DBCP)											IO	
VOC	1,2-Dimethylbenzene (o-Xylene)												
VOC	1,3,5-Trimethylbenzene (mesitylene)	IO											
VOC	2-Butanone (MEK)												
VOC	Acetone												
VOC	Benzene												
VOC	Chloroform												
VOC	Dichlorodifluoromethane (Freon 12)												
VOC	Ethylbenzene	IO											
VOC	Isopropylbenzene (Cumene)												
VOC	Methylene chloride												
VOC	Naphthalene	Y										IO	
VOC	n-Butylbenzene												
VOC	n-Propylbenzene												
VOC	sec-Butylbenzene												
VOC	Styrene												
VOC	Tetrachloroethene (PCE)												
VOC	Toluene												
VOC	Trichloroethene (TCE)												

Table 6: COPCs retained after screening to be evaluated in the HHRA, 0-15 feet below ground surface

Analyte Class	Analyte	Subareas											
		1	2	3	4	5	6	7	8	9	10	11	12
VOC	Trichlorofluoromethane (Freon 11)												
VOC	Xylenes, total	IO											
Radionuclides	Radium-226	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Radionuclides	Radium-228	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Radionuclides	Thorium	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Radionuclides	Uranium	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Notes:
COPC= Chemicals of potential concern
Y=retained for subarea risk assessment; IO= retained, limited occurrence; Blank cell indicates analyte not retained as COPC
Analytes listed have frequency of detect 5% or greater by subarea in 0-15 foot depth, or were identified as "IO"

2.6.3.3 Screening of Chemicals Evaluated via the Vapor Inhalation Pathways

VOCs/SVOCs are present in Process Areas soils, largely due to former underground storage tanks and spills/leaks from previous filling station activities. If buildings are constructed over these soils, there is a potential for VOC/SVOC vapors to migrate upwards through soil, infiltrate cracks in foundations, and accumulate in indoor air. EPA's Johnson & Ettinger Vapor Model (USEPA 2004a) was used to calculate soil screening levels protective of the vapor intrusion pathways. The model assumptions used in identifying COPCs for the vapor intrusion pathways are presented in Appendix B, and are based on a combination of site-specific information, EPA guidance, and best professional judgement. Risk-based screening levels for vapor intrusion into a residential building are used to identify the COPCs since these screening levels are more stringent than screening levels for vapor intrusion into industrial buildings or vapor inhalation during excavation activities.

Out of the three types of TPH analyzed in soil, gasoline range organics (C4 – C12), diesel range organics (C13 – C22), and motor oil range organics (C23 – C40), only the gasoline range organics mixture is volatile. For the samples analyzed for TPHs, 76 percent were also analyzed for VOCs and SVOCs. For the 24 percent that were not analyzed for VOCs and SVOCs, the volatile gasoline range and diesel range organic mixtures values are very low (i.e., non-detect to 0.84 mg/kg for gasoline range organics and non-detect to 73 mg/kg for diesel range organics). Therefore, only VOC/SVOC data are included in the vapor pathway analysis and TPH mixtures data are not included.

Prior to comparison of maximum VOC/SVOC soil concentrations to risk-based soil screening levels, the vertical separation distance was considered, as outlined in EPA (2015) guidance: If VOCs are from an underground storage tank and are petroleum-based, the vapor intrusion pathway is incomplete for those constituents provided all the following conditions are met:

- Vertical separation distance between the building foundation slab and free-phase or residual light non-aqueous phase liquid (LNAPL) is greater than 15 feet[3]. Residual LNAPL is considered to exist where petroleum VOC concentrations exceed soil saturation;
- Benzene soil concentrations from samples collected within 6 vertical feet of the slab are less than or equal to 10 mg/kg; and
- Benzene concentrations in soil that are greater than 10 mg/kg must be at least 15 vertical feet from the slab.

If the vapor intrusion pathway is incomplete, then there is no need to identify COPCs for the vapor intrusion pathway for that area.

No free-phase LNAPL is reported in the DSR (Brown and Caldwell 2014a) and the only petroleum VOCs that exceed soil saturation are 1,2,4-trimethylbenzene (TMB) in subareas 1 and 11 and xylene in subarea 1 (see Appendix B). Soil concentrations exceed soil saturation at a depth of less than 15 feet for 1,2,4-TMB[4] and for xylene[5]. These petroleum VOCs are retained as COPCs due to soil saturation at depths of less than 15 feet bgs.

The maximum benzene concentration exceeds 10 mg/kg in subarea 1 only (see Appendix B). The samples with benzene concentrations that exceed 10 mg/kg are from depths greater than 89 feet, which satisfies the condition that benzene concentrations greater than 10 mg/kg must be found greater than 15 feet bgs. However, because petroleum VOCs (i.e., 1,2,4-TMB, total xylenes) exceed soil saturation limits in subarea 1, benzene must be retained as a COPC for this subarea. No additional subareas are identified with a complete vapor intrusion pathway for benzene.

Based on consideration of separation distance, a complete vapor intrusion pathway for petroleum VOCs exists for subareas 1 and 11 only. The vapor intrusion pathway is incomplete for petroleum VOCs for the remaining subareas (subareas 2 to 10 and 12).

The Johnson & Ettinger Vapor Model-derived risk-based screening levels developed for future residential use of OU-3 are provided in Appendix B. The COPCs identified for this pathway are listed in Table 7 by subarea, and include a pesticide, a Freon, and solvents.

[3] Soil must be biological active.

[4] 1,2,4-TMB exceeds soil saturation at one location in subarea 1 (PA-UT23) and at two locations in subarea 11 (PA-CCC4C and PA-CCC2).

[5] Xylene exceeds soil saturation at two locations in sub-area 1 (PA-UT23 and PA-UT23A).

Table 7: COPCs retained for the vapor inhalation pathway by subarea, location, and depth of maximum concentration noted

Analyte Class	Chemical	Depth Bgs (feet) of Max Conc	Location of Max Concentration
Subarea 1			
PEST	alpha-BHC	8.5-10	PA-W1
SVOC	Naphthalene	34-35	PA-UT77
VOC	1,2,4-Trimethylbenzene	34-35	PA-UT70A
VOC	1,3,5-Trimethylbenzene	34-35	PA-UT70A
VOC	Benzene	89-90	PA-UT23C
VOC	Ethyl Benzene	34-35	PA-UT70A
VOC	Isopropylbenzene (Cumene)	34-35	PA-UT70A
VOC	Styrene	3-3.5	PA-UT23
VOC	Toluene	34-35	PA-UT70A
VOC	Xylenes (total)	34-35	PA-UT70A
Subarea 2			
PEST	alpha-BHC	8.5-10	PA-M2
VOC	Tetrachloroethene	0.5-1	PA-EX02
Subarea 3			
VOC	Trichlorofluoromethane	20-22	PA-YY2
Subarea 7			
PEST	alpha-BHC	3.5-5	PA-WW10
Subarea 9			
PEST	alpha-BHC	9-10	PA-EEE20
VOC	Trichlorofluoromethane	0.5-2.5	PA-EEE15
Subarea 10			
VOC	Trichlorofluoromethane	0.5-2.5	PA-II2
Subarea 11			
PEST	alpha-BHC	4-5	PA-HHH21
VOC	1,2,4-Trimethylbenzene	19.5-20.5	PA-CCC2
VOC	1,3,5-Trimethylbenzene	19.5-20.5	PA-CCC2
VOC	Tetrachloroethene	4-5	PA-CCC2B
SVOC	Naphthalene	4-5	PA-CCC4C
Subarea 12			
PEST	alpha-BHC	4.5-5	PA-PP1
VOC	Trichlorofluoromethane	4-5	PA-NNN2

Notes:
Bgs= below ground surface
PEST= pesticide, SVOC= semi-volatile organic compound, VOC= volatile organic compound
Subareas 4, 5, 6, and 8 did not have concentrations above vapor intrusion screening levels.

2.6.4 Identification of 'Infrequent Occurrence' COPCs

At EPA's request, the soil data were reviewed with consideration of areas where constituents are infrequently detected but the few detections are greater than RSLs, which allowed for consideration of constituents that may have otherwise been excluded if they were detected in fewer than five percent of the samples. Infrequently occurring COPCs were identified by searching the soils database for analyte concentrations that are greater than the EPA RSL concentration and were detected in fewer than five percent of samples or found in three or fewer locations within a subarea. For constituents identified in more than three locations, a subarea-wide evaluation is considered acceptable.

Potential 'infrequent occurrence' locations were visually inspected using ArcMap 10.3 software. Upon visual inspection, VOCs, SVOCs, TPH, pesticides, and PCBs were determined to be candidates for unique analysis based on low frequency of detection[6]. These constituent classes tended to have lower frequencies of detection and occurred at elevated concentrations in locations that were clustered together. For example, if a location contained elevated levels of benzo(a)pyrene, high concentrations of other polycyclic aromatic hydrocarbons (PAHs) were generally also found at that location and neighboring locations but were not necessarily distributed throughout the entire subarea.

The infrequent occurrence COPCs are listed in Table 8. These COPCs will be evaluated quantitatively in the HHRA when toxicity data are sufficient in the same approach as for other COPCs but may also be considered apart from other COPCs in the HHRA uncertainty analysis if risk results indicate a need for further evaluation. This analysis may include a discussion of their location and co-location with other COPCs, frequency of detection, and implications for future risk management decisions.

[6] The wide spatial distribution and high detection frequency of metals and radionuclides indicate subarea-wide analysis is appropriate for these COPC classes, as opposed to focusing on specific subset of sampling locations.

Table 8: Locations of COPCs with isolated occurrence, by subarea

Sample Location	Analyte Class(es)	Analyte(s)
Subarea 1		
PA-UT23	VOC, SVOC	2-Methylnaphthalene, Ethylbenzene, 1,2,3-trichloropropane, 1,3,5- Trimethylbenzene (mesistylene), Xylenes(total)
PA-UT23A	VOC, SVOC	2-Methylnaphthalene, Ethylbenzene, Xylenes(total)
PA-UT23C	VOC, SVOC	2-Methylnaphthalene, Ethylbenzene
PA-UT25	VOC	1,2,3-Trichloropropane
Subarea 4		
PA-DD10	SVOC, PCBs	Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Indeno(1,2,3-c,d)pyrene, Aroclor 1254
PA-FF2B	SVOC	Benzo(a)pyrene, Benzo(b)fluoranthene
PA-FF4B	SVOC, PCBs	Benzo(a)pyrene, Aroclor 1254
PA-FF4C	SVOC	Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene
Subarea 5		
PA-EE48	SVOC	Benzo(a)pyrene
PA-UT27	SVOC	Benzo(a)pyrene
Subarea 6		
PA-GG1	Pesticides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)
PA-HH6	SVOC	Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene
PA-TR3	SVOC	Benzo(a)pyrene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene
Subarea 8		
PA-FFF20	SVOC	N-Nitroso-di-n-propylamine
PA-UT29	PCBs	Aroclor 1248
Subarea 9		
PA-EEE1	SVOC	Benzo(a)anthracene, Benzo(a)pyrene
PA-EEE20	TPH, PCBs	Gasoline Range Organics, Aroclor 1016, Aroclor 1260
Subarea 11		
PA-CCC2	VOC	1,2,4-Trimethylbenzene
PA-CCC2B	VOC	1,2,4-Trimethylbenzene
PA-CCC4C	VOC	1,2,4-Trimethylbenzene
PA-HHH19	SVOC	Benzo(a)anthracene, Benzo(b)fluoranthene, Indeno(1,2,3-c,d)pyrene
PA-HHH21	SVOC, VOC	Dibenz(a,h)anthracene, 1,2-Dibromo-3-chloropropane (DBCP)
PA-HHH33	SVOC	Dibenz(a,h)anthracene
PA-HHH36	Pesticides	Dieldrin

Notes:
PEST= pesticide, SVOC= semi-volatile organic compound, VOC= volatile organic compound
Subareas 2, 3, 7, 10, and 12 do not contain isolated occurrence COPCs. Selected analytes from these subareas will be analyzed on a subarea-wide basis.

3. CONCEPTUAL SITE MODEL

One of the purposes of the CSM is to determine which, if any, of the potential routes of human exposure may be complete now or in the future. This determination is made according to whether an exposure pathway contains the following elements (USEPA 1989):

- A source and mechanism for release of constituents
- A transport or retention medium
- A point of potential human contact (exposure point) with the affected medium
- An exposure route at the exposure point.

If any one of these elements is missing, the pathway is not considered complete and exposure will not occur. For example, if human activity patterns and/or the location of potentially exposed individuals relative to the location of an affected exposure medium prevent human contact, or proximity for external radiation sources, then that exposure pathway is not complete. Similarly, if a pathway to human contact was initially considered in the CSM but no constituents in the environmental medium at the point of contact are identified, the pathway is incomplete and is not further evaluated in the HHRA.

The following sections describe the exposure setting, potential sources of mine-related constituents and their release and transport mechanisms, exposure media, populations that may contact exposure media, and definition of areas where exposures occur.

3.1 Exposure Setting

The exposure setting includes descriptions of human population areas and current and future land use on and near the site.

3.1.1 Human Population Areas

No population centers are located within OU-3 or anywhere else on the Site. The closest residential area to the Site is the small community of Weed Heights, bordering the Site to the west. In the vicinity of the Site, the population density is greater to the east, within Yerington city limits, with lower density to the north and west. Approximately 7,886 people (3,179 households) live in the Yerington census subdivision of Lyon County, and 3,048 of those people (1,302 households) live within the City of Yerington (Census 2010). The town of Yerington is approximately 1 mile to the east and southeast of the Site, and further yet from the Process Areas OU. Additional residences are found north of the Site along Locust Drive, north of Luzier Lane, as well as in the Sunset Hills area, approximately 1 mile north of the Site. Commercial and industrial businesses operate in Weed Heights, the City of Yerington, and along Highway 95A between the Site and Yerington.

3.1.2 Current and Future Land Use

Future use of the Process Areas OU is expected to remain as mining/mineral processing or other industrial activity given the current extensive site modifications for mining, land use designations, and reasonably likely institutional and proprietary controls. The assumption that the Site will remain in industrial use is well-supported and is critical in developing relevant exposure scenarios for the Process Areas OU. As stated in the SOW, "[i]n the long term, the Process Areas may be re-developed for industrial or commercial use." In the unlikely event that future land use does not remain exclusively industrial, it may be necessary to revisit the risk assessment to assess alternate exposure scenarios.

Current land use planning documents support continued industrial use of the Site, including the Process Areas OU. The Mason Valley Environmental Committee (MVEC) submitted a proposal to EPA in February 2007 that outlines preferred uses of the Site (MVEC 2007). In this proposal, land use designations for the Process Areas OU are divided between "light industrial" and "commercial–office" use.

The Lyon County county-wide component of the Comprehensive Master Plan (CMP; Lyon County 2010) provides land use designations for the Site and surrounding non-incorporated portions of Mason Valley. Any changes to current zoning in Lyon County must be consistent with the CMP land use map (Lyon County 2010). Development of the CMP is based on input from the Board of Commissioners, Planning Commission, community advisory councils, County staff, and the community at large. Input on identifying appropriate land use areas was received during a series of 55 public meetings, open houses, and workshops over a four-year period.

The CMP land use category for the Site is 'employment,' which is characterized by intensive work processes involving service industrial, employment mixed use, manufacturing, or resource handling. Examples include manufacturing, warehousing and distribution, and concentrated mixed-use employment. Land abutting the western and southwestern boundary of the Site is categorized as either employment or public land with the exception of the Weed Heights development, which is categorized as suburban. Land to the northwest and north across from Luzier Lane are categorized as a mixture of agricultural, rural and low density residential, and agriculture mixed with suburban residential. Land northeast, east, and southeast of the Site is categorized as a combination of employment, suburban, and commercial mixed use.

The majority of the land on the Site, including within the Process Areas OU, is owned by the Bureau of Land Management (BLM) or Singatse Peak Services LLC (SPS; see Figure 5). BLM's Draft Resource Management Plan and Environmental Impact Statement for the Carson City District[7] (RMP) designates the Site as open for mineral entry and available for mineral material disposal and nonenergy mineral leasing. Because of restrictions against the transfer of federal lands subject to CERCLA response actions under 42 U.S.C. § 9620(h), BLM lands are likely to either remain under federal control in the future or, be conveyed subject to restrictive covenants that preclude residential development and otherwise ensure protection of human health and the environment. Additional Site ownership outside of OU-3 lies with the Walker River Irrigation District and additional private owners, Don Tibbals and Desert Pearl Farms.

Current land use within the Process Areas OU is limited to SPS mineral exploration activities: mining equipment and supplies staging, drilling cores storage, geology lab workspaces, and administrative activities. Electrical, gas, and water services to all buildings have been disconnected, except for the SPS administration building and the equipment garage currently occupied by SPS (Brown and Caldwell 2016). SPS holds unpatented mining claims on much of the BLM lands comprising the site. The regulatory agencies, landowners, and potentially responsible parties are discussing additional institutional and proprietary controls that would formalize prohibitions against non-industrial future land use and any utilization of groundwater for potable use.

In accordance with the Superfund Redevelopment Initiative, EPA commissioned the Yerington Mine Site Reuse Assessment (E^2 Inc. 2010) to document stakeholder reuse goals and inform EPA's remedy selection process. During stakeholder interviews, which included current property

[7] See https://eplanning.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=renderDefaultPlanOrProjectSite&projectId=22652&dctmId=0b0003e88020e137

owners, Yerington Paiute Tribe staff, city and county staff, and others, EPA's consultant identified the following reuse goals for the Site:

- Promotion of economic development
- Protection of human health and the environment
- Utilization of the Site's assets
- Phasing of Site cleanup and reuse

Three specific stakeholder groups, Yerington Paiute Tribe, Yerington Community Action Group, and Mason Valley Environmental Committee, expressed an interest in "exploring environmentally sustainable economic development options, such as renewable energy generation" (E^2 Inc. 2010). Ultimately, it was concluded that the most likely future Site use is mining because aside from the stakeholder considerations, future land use determinations rest largely in the hands of the majority land owners and mineral rights owners, BLM and SPS (E^2 Inc. 2010).

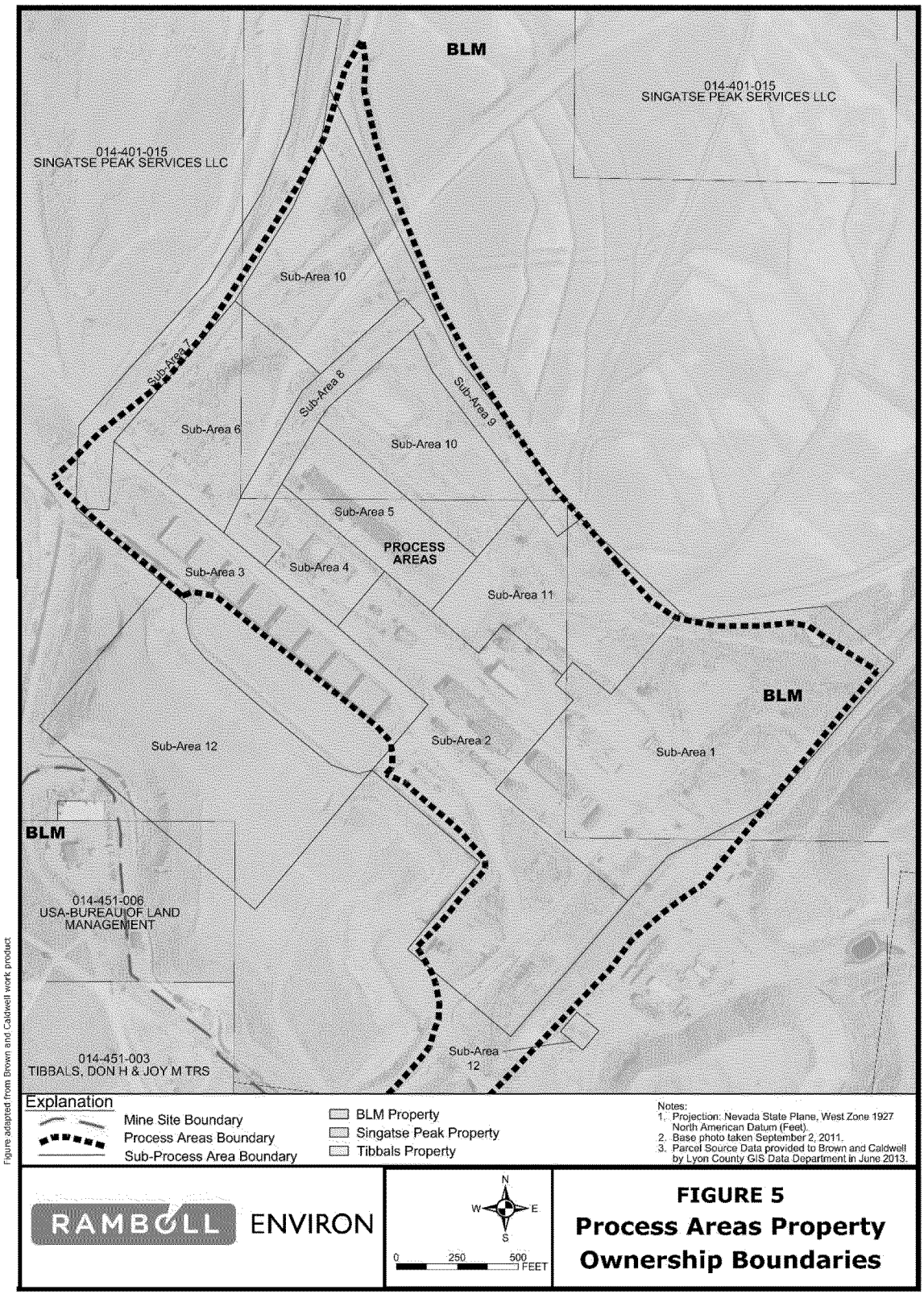
In addition to reliance on current land use, ownership, environmental covenants, the CMP, the RMP, and EPA's Site reuse assessment, assumption of future industrial use for the purpose of risk assessment is supported by EPA's (1995) discussion of land use considerations with remedy selection, which states: "future industrial land use is likely to be a reasonable assumption where a site is currently used for industrial purposes, is located in an area where the surroundings are zoned for industrial use, and the comprehensive plan predicts the site will continue to be used for industrial purposes."

Further to this example, EPA (1995) states that "In cases where the future land use is relatively certain, the remedial action objective generally, should reflect this land use." EPA continues, stating that when land use is relatively certain, alternative land uses do not necessarily need to be considered unless it is impractical to provide a protective remedy under the anticipated land use.

These statements are consistent with EPA risk assessment guidance (1989), which notes that although residential land use is the most conservative choice, an assumption of future residential land use may not be justifiable where, as here, the probability of future residential use at the site is "exceedingly small." Ultimately, EPA (1989) recommends that any future land use selection that varies from current land use should be supported with a logical and reasonable argument.

Current Site and surrounding land uses, CMP land use maps, EPA's reuse assessment (E^2 Inc. 2010), and any future environmental covenant for SPS-owned land inform revision of the CSM and selection of anticipated future land use to be evaluated in the HHRA. As described above, reasonably anticipated future land use will be industrial and more specifically, mining, mineral exploration, and mineral processing.

Figure 5: Process Areas property ownership boundaries



3.2 Potential Sources and Release Mechanisms

This section describes known and potential unconfirmed sources of mine-related chemicals in the Process Areas, chemical release mechanisms, chemical transport pathways for media found within the Process Areas, and the spatial distribution of chemicals of interest in Process Areas. The chemical sources, release mechanisms, transport pathways, and potential routes of human exposure are summarized in the Site-wide CSM (Integral and Brown and Caldwell 2007). A more detailed CSM specific to sources of chemicals in the Process Areas OU and potential transport pathways and exposure routes also is provided in this HHRA work plan.

A detailed discussion of historical mining and milling operations, structures and conveyances, and chemical releases associated with past operations is provided in the Process Areas RI Report (Brown and Caldwell 2016). A brief summary of potential releases of chemicals to the environment is provided below:

- Spilling of sulfuric acid precipitation solution — Acid may have spilled during filling or circulation via piping and pumps within the precipitation plant area as well as during transfer of spent solutions to the acid plant. Also, spent solutions may have been released via the dump leach recirculation sump.
- Leaching of solutions — Spent leach solutions were stored in the dump leach surge pond. Solutions may have been released to soils through infiltration of cracks or penetrations in the pond liner.
- Leaching of spent solution — Spent solution was used to wash calcines via the calcine ditch to the evaporation ponds. Solids and liquids washed down this ditch were deposited in the ponds but also likely were deposited along the ditch. Liquids may have evaporated and/or leached into ditch and pond soils.
- Releases of motor and fuel oil and gasoline — Spills of oils and fuels may have occurred during fueling of mine work vehicles via the mobile fueling truck and during maintenance of work vehicles. Maintenance activities may have also included the use of degreasers and soaps that could have infiltrated soils. Also, releases may have occurred via the floor drain located in the Truck Shop. Wash waters and drains may have drained to the Upper and Lower Truck Sludge Ponds, and/or the East Stormwater Ditch.
- Leaks or spills from oil and fuel storage tanks — Underground and aboveground storage tanks were used to store oil and fuel. Leaks from tanks and at filling stations may have occurred over time, and spills may have occurred during filling operations where tanks were or are located.
- Releases of laboratory materials — A drain line that leads to a dry well is portrayed on historical maps of the on-site laboratory. Releases of laboratory materials may have occurred via this line.
- Leaks and spills from stored materials — Stored lubricants, oils, solvents, and transformers may have leaked in cases where the integrity of the containers/equipment was compromised. For example, there are visible signs of releases from drums located in the tar drum storage area.

3.3 Potential Transport Pathways

Chemicals resulting from mining and milling activities may originate from the various source areas within the Process Areas OU. General transport mechanisms for chemicals from primary impacted media to secondary and tertiary impacted media are depicted in the CSM (Figure 6).

Chemical sources and primary and secondary transport mechanisms as well as exposure routes specific to the Process Areas are provided in Figure 6 and discussed below.

3.3.1 Surface and Subsurface Soil

As shown in Figure 6, chemicals released directly to surface soils as a result of former mining and milling activities or unplanned releases may be transported by wind and surface water runoff. The presence of natural or artificial physical barriers, such as vegetation or concrete slab pads and foundations, will inhibit or reduce the transport of particles as wind-blown dust. Particulates or fugitive dust transported by wind may be deposited and may accumulate in downwind areas. Areas of dust accumulation may become secondary sources of chemicals to subsurface soil and groundwater via leaching and percolation.

Percolation of process solutions into the soil column, vadose zone, and groundwater is a potential release mechanism that likely ceased when mine operations ended, when such solutions evaporated, and/or when surface mine units dried sufficiently to increase moisture storage capacity. High evaporation rates in the locally arid desert terrain should greatly minimize subsequent leaching or relocation of releases from the former mine units. Geochemical processes such as mobilization and attenuation may modify the concentration of chemicals in percolating process solutions or leachate through soils or the underlying vadose zone. There is the potential for precipitation to leach (mobilize) constituents from mine unit materials. Conversely, some chemicals in meteoric water infiltrating through mine units may be attenuated (e.g., via adsorption).

In addition, horizontal and vertical migration of volatile chemicals (e.g., fuel-related compounds, solvents, degreasers, and radon) that subsequently migrate upwards and are released to ambient air may contribute to attenuation of chemicals in subsurface soil and groundwater. Vapor migration is influenced by chemical and physical properties of the soil and of each individual chemical, and will be evaluated when volatile chemicals are present in subsurface soil (USEPA 2015; US EPA 2002b).

3.3.2 Groundwater

Leaching of chemicals from surface mine units within the Process Areas OU into underlying soils, the vadose zone, and groundwater also is identified as a potential release mechanism. Infiltration of meteoric water (as precipitation) containing leached chemicals may provide a link between identified potential sources and the groundwater pathway. Groundwater underlying the Process Areas then may migrate to other areas of the Site. Review of analytical results indicates that Site operations have impacted groundwater upgradient and underlying OU-3. Physical and chemical transport pathways are discussed in more detail in *Site-wide Groundwater Operable Unit (OU-1) Remedial Investigation Work Plan* (Brown and Caldwell 2014b).

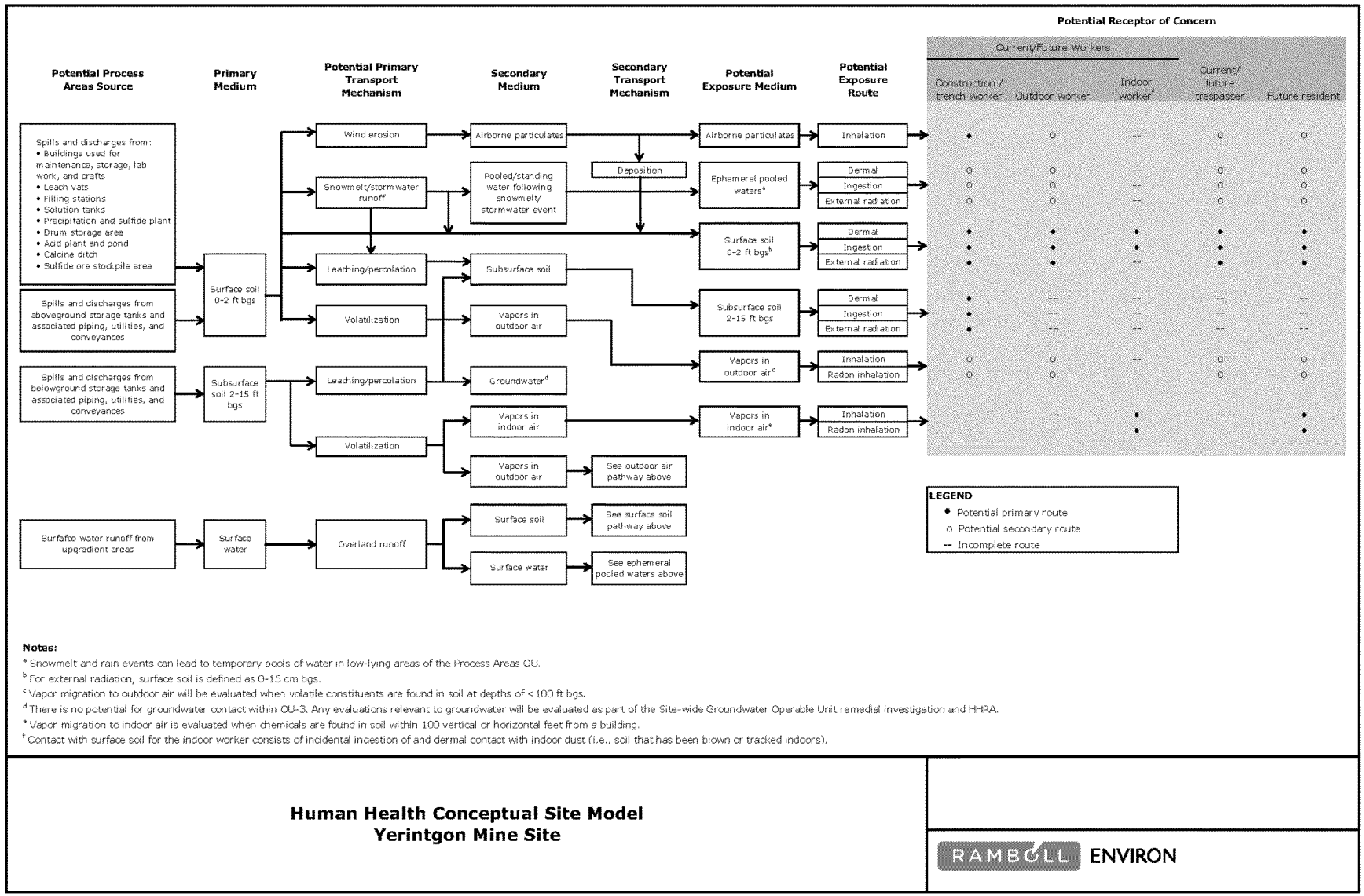
3.3.3 Surface Water

Erosion of surface mine units due to surface water runoff (e.g., storm water events or snowmelt) also may result in transfer and deposition of chemicals in exposed surface soil to other, down-gradient upland areas. Stormwater may potentially accumulate in the north and south low areas and other topographically low areas at the north and southeast portions of the Process Areas. Accumulation of water in topographically low areas may occur where otherwise, during dry times of the year, soil would be exposed. Areas of surface water accumulation may become secondary sources of chemicals to subsurface soil and groundwater via leaching and percolation. Areas of accumulation are limited to the Site; there is no direct pathway for storm water to migrate to surface water bodies, such as the Walker River.

3.3.4 Radiation

In addition to migration of chemicals from their sources to other media, radiation may exist anywhere radionuclides are or may accumulate in soils or water. Transport of the material may occur by any of the transport pathways described above. Exposure to external radiation is generally limited to materials within the upper 15 cm of soil thickness; radionuclides found below this level are shielded by the top layer of soil. Previous calculations have indicated that radionuclides more than 60 cm below ground surface do not contribute to external radiation. Geometric attenuation limits the external radiation from materials, including buildings, with no interposed shielding materials to within a few meters, typically less than 5 m and often less than 1 to 2 m from the source.

Figure 6: Human health conceptual site model



3.4 Exposure Media

The media in which mine-related constituents may be found currently or in the future are presented in Figure 6. Exposure media include surface and subsurface soil, particulates and vapors in outdoor air, particulates and vapors in indoor air, and storm water. The potential for direct groundwater contact under current conditions is limited to groundwater monitoring activities which are managed under the site-specific health and safety plan for the Site. There is no complete exposure pathway for groundwater with anticipated future land use.

3.5 Potential Human Receptors and Exposure Routes

The pathways by which people may contact COPCs are presented in the Process Areas OU CSM (Figure 6) and are discussed in this section. Human populations anticipated to have contact with exposure media are current and future workers and trespassers. These populations are described in Section 3.5.1 and 3.5.2, respectively. There are no current or anticipated future residents or recreational users of the Process Areas OU. Although residents are described in Section 3.5.3 and will be included in the HHRA, the use of residential exposure assumptions will tend to substantially overestimate potential risks within OU-3.

Routes by which contact with exposure media may occur are identified in Figure 6. Primary exposure routes are represented by a closed circle and signify exposure routes that are anticipated to be complete, and possible routes contributing significantly to total exposures for current and future Site users. Secondary exposure routes are represented by an open circle in Figure 6 and are not expected to contribute substantially to total exposures. Incomplete exposure routes are represented by two short dash symbols and will not be evaluated in the HHRA.

Four full-time ARC contractors are currently employed at the Site to assist with operations, maintenance, Site security, and other activities. At times, these workers drive through the Process Areas OU to access the Evaporation Ponds and Sulfide Tailings OU and Oxide Tailings OU, and to complete safety patrols. On-site workers take water level measurements monthly and collect groundwater samples quarterly at four active monitoring wells within the Process Areas. Although some supplies and tools are stored in the 'blue' and sample preparation buildings in the Process Areas, on-site staff avoids dilapidated buildings, exposed foundations, or other areas where physical harm is a risk. All EPA-designated radiological hazard areas are avoided. The workers are trained in hazardous site operations and their activities are conducted in compliance with the Site's health and safety plan. For these reasons, current Site operations, remediation worker, and maintenance worker scenarios will not be included in the HHRA.

3.5.1 Current/Future Process Areas Workers

Current SPS workers in the Process Areas OU perform a variety of activities related to mineral exploration. The truck shop building is used by drillers to store pallets and boxes with drilling cores and stage equipment and supplies. The warehouse building, located south of the truck shop, is used to store pallets of drill cuttings and also houses a geology lab with workbenches. The lab is used by several staff to analyze drilling cores. The ambulance building, located west of the truck shop, is an administrative office space. In addition, mining-related equipment is stored outdoors. Future development of the Process Areas OU will support mining and may include construction of additional office space and/or mineral processing facilities.

Based on current knowledge of current and anticipated future use, the following worker populations are relevant to the Process Areas OU HHRA:

- Current/future indoor worker
- Future construction/trench worker (short-term employment)
- Future outdoor worker

3.5.1.1 Current/Future Indoor Worker

Office workers in the Process Areas OU spend all or most of their time indoors analyzing drilling cores or performing administrative duties. Assumptions for this scenario have been revised since the previous CSM was developed, based on further consideration of available data and historical reports. Potentially complete, primary exposure pathways for indoor workers include:

- Incidental ingestion of and dermal contact with surface soil as indoor dust only
- Inhalation of vapors and radon in indoor air

The indoor office worker is not likely to perform outdoor activities or have direct contact with soil and inhalation of soil, as resuspended dust is considered a negligible, incomplete exposure pathway. Instead, it is assumed that the indoor worker contacts soil that has been tracked or blown indoors and is present on interior surfaces as dust. A future scenario may assume subsurface soil is brought to the surface during regrading for additional office space construction and that the subsurface soil may be blown or tracked indoors, but future reclamation scenarios are also likely to include impermeable or vegetative groundcover limiting substantial soil contact.

Volatile chemicals, including radon, are present in subsurface soil within several subareas and if buildings are constructed within these areas, the vapors may infiltrate cracks and spaces in building foundations and migrate to indoor air. Therefore, inhalation of vapors and radon in indoor air is considered a potentially complete, primary exposure pathway for future indoor workers in these subareas.

Therefore, the indoor worker will be evaluated for potential exposure to surface soil (0 – 2 ft bgs) and indoor air only. There are no complete secondary pathways for future indoor workers.

3.5.1.2 Future Construction/Trench Worker

It is possible that temporary workers will be used to reclaim the Process Areas OU to support mining or other commercial/industrial activities. For the HHRA, it will be assumed that the future worker scenario includes a construction or trench worker who works on-site temporarily to perform demolition or construction activities. These activities may be conducted throughout the Process Areas OU, wherever existing structures are located for demolition or where future structures may be built. Activities associated with demolition and construction may result in contact with exposure media via the following primary exposure pathways:

- Incidental ingestion of and dermal contact with surface and subsurface soil
- Inhalation of fugitive dust
- External radiation exposure from surface and subsurface soil

Construction workers are assumed to contact surface soil from 0 to 2 feet bgs during demolition and construction activities. This depth is recommended for the Process Areas OU as the most relevant for activities such as construction, outdoor maintenance, and landscaping (USEPA 2002c). For subsurface infrastructure work, such as excavation and installation of foundations, a

trench worker may contact deeper soils to a depth of 15 feet bgs. While working outdoors, the worker may inhale surface soil that has been resuspended and entrained by the wind or vehicle movement. Exposure to external radiation from soil is evaluated for the upper 60 cm of exposed soil only, due to the shielding effect of this soil horizon over lower depths.

Construction and trench workers may also contact chemicals via other potentially complete secondary exposure pathways:

- Incidental ingestion of, dermal contact with, and internal and external radiation exposure from storm water
- Inhalation of vapors and radon in outdoor air or in an excavation

Internal and external radiation from storm water and direct contact with these waters is considered a potentially complete but minor pathway, because these waters are present intermittently and workers are not likely to have contact on a regular basis. If volatile chemicals and/or radon are present in subsurface soil and migrate upward to outdoor air, workers may inhale the vapors and/or radon while working outside. For construction workers, this inhalation pathway is considered a minor pathway because vapors are expected to be dispersed in ambient air and will not be evaluated quantitatively in the HHRA. Inhalation of vapors and radon by the trench worker is assumed to be limited to work within a trench or excavation.

Groundwater within the Process Areas OU lies at or below 100 feet bgs and will not be contacted directly by workers performing construction activities. Future environmental covenants / access agreements for the Process Areas OU are likely to prevent any use of alluvial groundwater and so direct contact with groundwater is not anticipated to be a complete exposure pathway for future workers.

3.5.1.3 Future Outdoor Worker

The future outdoor worker is not assumed to perform intensive earth-moving activities, as with the construction and utility workers, but instead may perform non-intrusive work such as building and property maintenance and skilled or trade labor activities. Potentially complete, primary exposure pathways for future outdoor workers include:

- Incidental ingestion of and dermal contact with surface soil
- External radiation from surface soil

Typical activities for the outdoor worker include moderate digging and landscaping, which would result in exposure to surface and shallow subsurface soils at depths 0 to 2 feet bgs. External radiation from surface soil to a depth of 60 cm bgs also is considered a complete, primary exposure pathway for the Process Areas outdoor worker.

Potentially complete but minor pathways for future outdoor workers include:

- Dermal contact, incidental ingestion, and external radiation exposure from water in ephemeral pooled waters
- Inhalation of particulates in outdoor air
- Inhalation of vapors and radon in outdoor air

Contact with ephemeral pooled water following snowmelt or storm events is expected to be a potentially complete but minor pathway because these waters are not present year-round and workers are not likely to contact the water on a regular basis. Inhalation of soil as resuspended dust is a potentially complete pathway but is considered minor relative to more direct routes of

exposure. If volatile chemicals and radon are present in subsurface soil and migrate upward to outdoor air, workers may inhale the vapors and radon while working outside. However, this exposure pathway is considered a minor pathway because vapors are expected to be dispersed in ambient air.

3.5.2 Trespasser

The entire Site is surrounded by chain link fence, restricting access by unauthorized visitors. Nevertheless, trespassers have gained entry in the past to unlawfully collect scrap metal and other materials and equipment. Because the Process Areas OU is not located near or adjacent to a residential area, it is assumed that the trespasser is teenaged juvenile as opposed to a young child. For the baseline HHRA, it is assumed that the trespasser is 11 to <16 years and contacts COPCs in outdoor environmental media via the following primary exposure pathways:

- Incidental ingestion of and dermal contact with surface soil
- External radiation exposure from surface soil

Incidental ingestion of, dermal contact with, and external radiation from surface soil are potentially complete, primary pathways for the trespasser.

The following exposure pathways are potentially complete but minor relative to those pathways listed above:

- Inhalation of particulates in air
- Incidental ingestion of, dermal contact with, and external radiation exposure from ephemeral pooled water
- Inhalation of vapors and radon in outdoor air.

Because of the limited time spent in the Process Areas and limited available activities, contact with stormwater and inhalation of particulates, vapors, and radon are expected to be minor exposure pathways. Trespassers are not expected to have contact with subsurface soil and vapors and/or radon in indoor air.

3.5.3 Future Resident

Current and anticipated future land use imply the Process Areas will remain under an industrial land classification. A pending environmental covenant agreement between the Nevada Division of Environmental Protection and land owner SPS would preclude all residential land use on SPS-owned land and any use of groundwater for bathing, food production, or human consumption. EPA guidance (1989, 1995) states that properties under industrial use can be assumed to remain industrial unless there are indications that this is not appropriate. There is no indication that the Lyon County Comprehensive Management Plan or BLM RMP will be revised to allow for residential use of the Yerington Mine Site or that the current land owner will convey or develop the property for non-industrial use. However, because SPS has not yet recorded the environmental covenant, EPA requested evaluation of a residential scenario. Even without the environmental covenant, engineering and other land-use controls will restrict all access to the Site for future residents of the Process Areas. As stated in the Screening-Level Human Health Risk Assessment for OU-8, "*This approach would tend to overestimate actual onsite exposure and associated risks and hazards because, currently, the Site is entirely bounded by chain-link fencing and is posted with warning signage*" (CH2M Hill 2010).

If hypothetical future residents are to populate the SPS-owned portions of the Process Areas, they may contact environmental media via the following primary exposure pathways:

- Incidental ingestion of and dermal contact with surface soil and soil-derived indoor dust
- External radiation exposure from surface soil
- Inhalation of vapors and radon in indoor air

Hypothetical future residents may also contact chemicals in environmental media via the following minor exposure pathways:

- Incidental ingestion of, dermal contact with, and external radiation exposure from ephemeral pooled water
- Inhalation of vapors and radon in outdoor air
- Inhalation of particulates in outdoor air

Contact with ephemeral pooled water following snowmelt or storm events is expected to be a potentially complete but minor pathway because these waters are not present year-round and residents are not likely to contact the waters on a regular basis. If volatile chemicals and radon are present in subsurface soil and migrate upward to outdoor air, residents may inhale the vapors and radon while outside. However, this exposure pathway is considered a minor pathway because vapors are expected to be dispersed in ambient air. In the absence of ground cover, outdoor soil may be resuspended by wind and subsequently inhaled while residents are outdoors but this pathway is anticipated to be a minor exposure pathway relative to direct soil contact.

4. EXPOSURE ASSESSMENT

The purpose of the exposure assessment is to estimate the type and magnitude of human exposure to COPCs identified at a site. To estimate exposure, concentrations and radioactivity at the point of contact are combined with assumptions regarding human activity patterns to calculate COPC intakes and radiation doses for each complete pathway. The intakes are then combined with toxicity criteria for the chemicals to estimate risks in the risk characterization section of the HHRA.

4.1 Exposure Units

Human health risks at a site are calculated based on an exposure point concentration (EPC) which represents the concentration of a chemical in a given exposure unit (EPA 2002d). EPA (2002d) defines an exposure unit as "the area throughout which a receptor moves and encounters an environmental medium for the duration of the exposure. Unless there is site-specific evidence to the contrary, an individual receptor is assumed to be equally exposed to media within all portions of the exposure unit over the time frame of the risk assessment." It is assumed that contact with environmental media within an exposure unit is spatially random unless there is information supporting activity patterns focused on specific areas within an exposure unit.

Exposures for worker receptor populations are unlikely to be limited to the subarea boundaries, which were defined for the purposes of sample collection and site characterization without consideration of current or reasonably foreseeable future use patterns. Indoor workers may spend the duration of their career in one building or area within the Process Areas OU where they contact soil-derived dust that is blown or tracked indoors. Similarly, a construction/trench worker may have intensive soil contact in a specific portion of the OU for short-term development projects while an outdoor worker may contact soil throughout the entire OU.

Due to uncertainty in future land use, EPA and ARC agreed to evaluate each subarea as an individual exposure unit for workers. When evaluating subareas as individual exposure units, risks will not be additive across the entire OU. In addition, the entire OU will be evaluated as one complete exposure unit for future workers. In this way, constituent concentrations in subareas more heavily impacted by historical operations would not be 'diluted' as could occur if risks were evaluated only on an OU-wide basis. Individual subarea risks and OU-wide risks will provide a range of risks useful in risk management decision-making.

For trespassers, the entire Process Areas OU will represent the exposure unit because there is no basis to assume they would preferentially visit any one subarea.

For hypothetical residents, each subarea will represent an individual exposure unit.

4.2 Calculation of Intake

The intake refers to the amount of a COPC that enters the mouth or lungs, or contacts the skin. For radionuclides, external exposure pathways are evaluated separately from internal exposure pathways.

Quantification of intake will follow EPA risk assessment and soil screening guidance (1989, 2002b, 2004b, 2009a, 2014b, others). The specific exposure parameters that will be used to calculate the average daily and lifetime average daily intakes for each exposure pathway are outlined in Section 4.2.2 to Section 4.2.5.

Consistent with EPA guidance, the baseline HHRA will estimate exposures and risks for the applicable population(s) based on 'average' intakes or intakes near the center of the range, called the central tendency exposure (CTE), and on intakes that are near the upper end of the range, also known as the reasonable maximum exposure (RME). Only an RME scenario will be calculated for the trespasser because this population has less exposure to the Site than the worker and resident populations, and is not likely to experience adverse risks unless individual exposure activity is high. CTE estimates incorporate typical or average exposure parameter values. RME inputs incorporate a combination of average and high-end exposure parameters to represent a reasonable, upper-end estimate of exposure (i.e., typically the 90-95th percentile of the exposure distribution). Evaluating two exposure conditions provides more complete risk characterization information to support risk management decision-making. Radionuclides will be evaluated using the same CTE and RME scenarios as non-radionuclide analytes (USEPA 2000a).

COPC-specific intakes for each exposure pathway are estimated using equations that incorporate several exposure factors, which are described in general terms below:

- Contact rate — amount of exposure media that a person contacts over a specified time
- Exposure point concentration — concentration of a specific chemical in the exposure medium
- Exposure frequency — refers to how often a person could be exposed to the chemical
- Exposure duration — refers to how long a person could be exposed to the chemical
- Relative bioavailability adjustment — accounts for the difference in bioavailability between the exposure medium and the dosing vehicle used in the critical toxicity test that is the basis for the toxicity value
- Body weight — is the typical mass (in kilograms) for each age group of people who may be exposed
- Exposure averaging time — refers to the time (in days) over which exposure is averaged (e.g., over a lifetime for chemicals that might cause cancer or over a year for other chemicals).

Intake of non-radionuclides varies somewhat by pathway, but is generally estimated using these exposure factors in the following equation:

$$\text{Intake } \left(^{mg}/_{kg\text{-}day}\right) = \frac{EPC \times CR \times EF \times ED \times RBA}{BW \times AT}$$

Where,

EPC	=	chemical-specific exposure point concentration (e.g., mg/kg)
CR	=	contact rate (e.g., mg/day)
EF	=	exposure frequency (days per year)
ED	=	exposure duration (year)
RBA	=	relative bioavailability adjustment (unitless)
BW	=	body weight (kg)
AT	=	averaging time (days)

The intake equation varies to some extent by exposure pathway and exposure factors vary depending on the population being evaluated. Each population will be characterized by a number of assumptions regarding the frequency of contact with potentially contaminated media, duration of exposure, and other parameters unique to each population. In addition, this equation may vary to some extent, depending on the exposure route being evaluated.

Exposure parameters are displayed in Table 10 and are described in more detail in the following sections.

Lead is not evaluated in the same manner as other non-radionuclide COPCs. The EPA adult lead methodology (ALM) and integrated exposure uptake biokinetic (IEUBK) model will be used to estimate blood lead levels for female workers and adult residents, and for children, respectively. The IEUBK is currently under review by EPA and so updates to model assumptions may be necessary prior to conducting the HHRA. Assessment of lead in Process Areas soils is discussed in Section 5.5 and Appendix C, and will incorporate recent updates issued by EPA's Technical Review Workgroup for Lead (2016c).

For radionuclides, the following general internal dose equation models internal dose:

$$\text{Intake (pCi)} = \text{EPC} \times \text{CR} \times \text{EF} \times \text{ED}$$

where the variables are the same as above, except that EPC is expressed in units of pCi/g, based on the radioactivity of a particular radionuclide rather than the mass. In addition, the body mass and averaging time exposure factors are not relevant for radionuclides. For thorium, measured thorium mass concentrations are assumed to be 100 percent thorium-232 and are converted to activity using a specific activity of 1.1E+5 pCi/g. For uranium, measured mass concentrations are assumed to be natural uranium. The natural isotopic abundances of uranium-234, -235, and -238 (0.0055%, 0.72%, and 99.27%, respectively) and their specific activities (6.2E+3, 2.1E+6, and 3.3E+5 pCi/g, respectively) are used to convert mass measurements to activity.

The following sections provide an explanation of each exposure parameter that will be used to quantify exposures for workers, trespassers, and residents within the Process Areas OU.

4.2.1 Exposure Point Concentrations

To estimate the magnitude of exposure from each exposure medium, a representative concentration of each COPC for each exposure unit and depth interval will be calculated and applied to the intake equation described in Section 4.2. Exposure units are described in Section 4.1 and were selected in consultation with EPA.

The representative chemical concentration, or EPC, is a conservative estimate of the average chemical concentration in a medium that someone is likely to contact over a long period of time (USEPA 1989; Singh et al. 2007). EPCs for radionuclides are expressed as an activity level in a medium rather than a concentration. EPCs may be derived in several ways using a variety of statistical analyses, as described below.

4.2.1.1 Soil EPCs

Surface soil (0-2 feet bgs) will be evaluated as a source contributing to constituent concentrations in indoor dust. Subsurface soil (2-15 feet bgs) also will be evaluated. EPC calculations for COPCs in soil will take into account the presence of VLT, varying sample depth lengths, and treatment of non-detects.

Soil EPCs will be calculated using data described in Section 2.4 to represent concentrations workers, trespassers, or hypothetical future residents may be exposed to via incidental ingestion of and dermal contact with soil on site. The 95 percent upper confidence limit of the arithmetic mean (UCLM) will be used to represent the EPC, as recommended by EPA (1989, 2002d). EPCs will be calculated using EPA's ProUCL software (USEPA 2016). ProUCL provides parametric and nonparametric methods of calculation and accounts for analytical results below the sample detection limit. The ProUCL-recommended method for calculation of the UCLM will be used as the basis of the EPC, unless this value exceeds the maximum detected concentration. If the recommended UCLM exceeds the maximum, the maximum will be selected as the EPC.

Considerations for Soil Sample Depth Intervals

At each sampling location, soil samples were collected from various length sections of each drill core (e.g., 6 inch, 1 foot, 1.5 foot, and 2 foot sections). In addition to varying by section length, samples were collected at depth intervals that varied by boring location. As described in the DSR (Brown and Caldwell 2014a), soil samples were collected at a 'near surface' interval, at 5-foot intervals from the near surface sample to a depth of 50 feet below ground surface (bgs), and then at 10-foot intervals beyond 50 feet bgs. In some cases, sample intervals were altered by field personnel when visible staining, odor, or discoloration and/or lithologic changes were identified. Preferential sampling of soil with signs of contamination focused the investigation on soils with potentially higher constituent concentrations.

The depth of the 'near surface' sample varied by location, depending upon the presence and thickness of VLT. VLT were identified and the thickness logged to the nearest inch (VLT are discussed further, below). The near surface sample then was collected below the VLT, at first presence of native soil (Brown and Caldwell 2014a). In this way, a near surface soil sample may be collected from a depth of 2 to 3 feet bgs at Location A where there is 2 feet of VLT overlying the native soil, whereas a near surface soil sample at nearby Location B may be collected from 1.5 to 2.5 feet bgs if only 1.5 feet of VLT overlies the native soil. At Location A, the first 5-foot interval sample would have been collected at 7 to 8 feet bgs and at Location B the first 5-foot interval sample would have been collected at 6.5 to 7.5 feet bgs.

To account for the variation in sampled depths within native soil and varying thickness of VLT, depth-weighted averaging for the 0-2 foot and 0-15 foot depth intervals will be implemented prior to calculating EPCs at each sample location. Using the same nearest-neighbor assumptions as for spatial weighting, a weighting factor using the mid-point between two sampled depths will be applied. If present, VLT will be included in the depth-weighted averaging using the mean concentration measured in the OU-6 VLT samples (more detail on treatment of VLT is included below). In this way, a soil concentration for the entire soil depth interval of interest will be calculated. Depth-weighted average concentrations will be calculated at each soil sampling location by:

1. multiplying each analyte concentration by the sampled soil section length within the total soil depth of interest (i.e., 0-2 feet for indoor/outdoor workers and trespassers or 0-15 feet bgs for excavation/construction workers),
2. calculating the midpoint in the non-sampled depth intervals and assigning the nearest-neighbor sampled soil concentration,
3. summing the product(s) from steps 1 and 2 and then dividing by total soil depth of interest (i.e., 2 feet or 15 feet).

For example, sample location C has VLT present from 0 to 0.5 feet and three native soil samples that represent the 0.5 to 15 foot bgs depth interval, with one soil sample from 0.5 to 1.5 feet, one from 5.5 to 6.5 feet, and one from 10.5 to 11.5 feet bgs. The arsenic concentrations at sample location C are 10 mg/kg in VLT, and 10 mg/kg, 11 mg/kg, and 20 mg/kg in the native soil samples, respectively. The concentrations would be weighted as listed in Table 9.

Table 9: Example soil depth weighting calculation

Soil Depth Interval (feet)	Arsenic Soil Concentration (Assigned or Analyzed), mg/kg	Depth Weighting (feet)
0 – 0.5	10 (analyzed)	0.5
0.5 – 1.5	10 (analyzed)	1
1.5 – 3.5 (midpoint)	10 (assigned)	2
3.5 – 5.5 (midpoint)	11 (assigned)	2
5.5 – 6.5	11 (analyzed)	1
6.6 – 8.5 (midpoint)	11 (assigned)	2
8.5 – 10.5 (midpoint)	20 (assigned)	2
10.5 – 11.5	20 (analyzed)	1
11.5 – 15	20 (assigned)	3.5

The calculation of the depth-weighted average would appear as:

$$\frac{(10\frac{mg}{kg}\times 0.5ft)+(10\frac{mg}{kg}\times 1ft)+(10\frac{mg}{kg}\times 2ft)+(11\frac{mg}{kg}\times 2ft)+(11\frac{mg}{kg}\times 1ft)+(11\frac{mg}{kg}\times 2ft)+(20\frac{mg}{kg}\times 2ft)+(20\frac{mg}{kg}\times 1ft)+(20\frac{mg}{kg}\times 3.5ft)}{(0.5\ ft+1\ ft+2\ ft+2\ ft+1\ ft+2\ ft+2\ ft+1\ ft+3.5\ ft)}=14.7\ mg/kg$$

When analytical results for a sampled interval are below the detection limit, the analyte concentration will be represented by one-half of the detection limit in the depth-weighting calculations. For radionuclides, reported values less than the detection limit will be used as reported.

Depth-weighted average concentrations representing individual sample locations for the 0-2 foot or 0-15 foot soil depth intervals (inclusive of VLT and native soil as described above) will be parsed by subarea to calculate subarea-specific UCLMs using ProUCL (USEPA 2016b). As requested by EPA, UCLMs also will be calculated for some subareas without depth-weighting as well as on an OU-wide basis. The results of these calculations will be presented in a sensitivity analysis.

Considerations for Incorporation of VLT

Analytical data for VLT are for metals and radionuclides only. The presence of VOCs, SVOCs, pesticides, herbicides, and PCBs is assumed to be negligible as the presence of these chemical classes within OU-3 is attributed to historical activities that occurred prior to placement of the VLT in OU-3. For sample locations where VLT were identified but organic constituent data are not available, the EPCs for organic constituents will be calculated using analytical data for native soils only.

For sample locations where VLT were identified, analytical data representing VLT will be incorporated into the depth-weighted averaging calculation for that location. The two scenarios that will be applied in the calculation of soil EPCs include:

- VLT are present for the entirety of the soil depth of interest (i.e., VLT extend beyond 0-2 feet bgs, VLT extend beyond 0-15 feet bgs), and will be the sole exposure medium evaluated at that sampled location.
- VLT are present for some but not all of the 0-2 foot and 0-15 foot bgs soil depths at a location. Analytical data for VLT will be incorporated into the depth-weighted average to produce a 'combined' native soil/VLT sample concentration.

A UCLM concentration will be calculated for all constituents analyzed in the VLT samples using ProUCL. These concentrations will represent VLT overlying native soils in OU-3 and will be used in the depth-weighting calculations described above[8].

4.2.1.2 Soil-derived Indoor Dust EPCs

Both the indoor worker and hypothetical resident are assumed to contact indoor dust, a portion of which is assumed to be derived from outdoor soil. There are no homes currently located within OU-3, so indoor dust samples are not available. For the indoor worker and hypothetical future resident, indoor dust constituent concentrations will be estimated using a default mass soil-to-dust transfer factor (MSD) value of 0.7 (USEPA 1994), according to the following equation:

$$EPC_{dust} = MSD \times EPC_{soil}$$

Use of the default MSD is likely to be highly protective for metals contributions to indoor dust. In a review of outdoor soil and indoor dust data collected from nine mining/smelting sites, EPA Region 8 scientists found MSD values to range from 0.04 to 0.35 (Brattin and Griffin 2011).

4.2.1.3 Airborne Particulate EPCs

Active ambient air monitors were located to the southwest (AM-1) and east (AM-3) of the Process Areas OU; no monitors are located within the Process Areas OU. PM_{10} (particulate matter smaller than 10 µm in diameter), metals, and radionuclide analytical data collected from February 2005 through 2007 are available for each monitoring location. In spring 2007, continuous monitors also were installed at these locations. With a predominant wind direction blowing toward the northeast, data from AM-1 will most often represent dust concentrations blowing to the Site from off-site areas, including Weed Heights, and AM-3 data will most often represent dust from on-site areas south of the Process Areas.

A Site-wide baseline HHRA for the inhalation pathway was conducted using air quality monitoring data collected from January 2005 to March 2008 (Brown and Caldwell and Foxfire Scientific 2011). The baseline HHRA found there was no potential for chronic or acute adverse health effects associated with metals or radionuclides in dust from the Site. PM_{10} and lead air concentrations also met National Ambient Air Quality Standards. The risk calculations for chronic exposures were based on the assumption that a resident lived outdoors at the air monitoring station locations for 30 years and breathed annual average air concentrations for 24 hours per day, 350 days per year (Brown and Caldwell and Foxfire Scientific 2011). The evaluation of

[8] As noted in Section 2.4, analytical data for VLT were collected from the Oxide Tailings OU (n=49) and are representative of the VLT in OU-3.

acute exposures accounted for a worst-case scenario where all the PM_{10} (99.7th UCLM of 24-hour average concentration) exposure occurred over a 15-minute duration. This scenario accounted for high wind and dust conditions that sometimes occur in the area. The evaluations for the chronic and acute scenarios are protective of a trespasser, future hypothetical resident, and outdoor worker operating in the Process Areas.

Due to the uncertainty in determining if air monitors represent ambient air concentrations of metals and radionuclides specifically within the Process Areas OU, particularly during earthmoving activities that are likely to occur during reclamation, fugitive dust concentrations will be estimated from COPC concentrations in surface soil. A particulate emission factor (PEF) will be used to relate the chemical concentration in soil to an estimated COPC concentration associated with respirable particles in air due to dust emissions from contaminated soil.

Factors influencing the PEF include the amount of ground cover present, soil type, and wind speed. The area, fraction of ground cover, and wind speeds associated with the Process Areas are inconsistent with the EPA default value. The PEF of 1E-06 kg/m^3 calculated for a construction worker operating in the Anaconda Arimetco OU-8 (CH2M Hill 2010) will be used. The PEF will be applied in the following equation to calculate EPCs resulting from fugitive dust:

$$C_{air} = EPC_{soil} \times PEF \times CF$$

Where,

C_{air}	=	Steady-state chemical concentration in outdoor air (µg chemical/m^3 air)
EPC_{soil}	=	Soil concentration of chemical (mg chemical/kg soil)
PEF	=	Site-specific particulate emission factor (kg particulate/m^3 air)
CF	=	Conversion factor of 1000 µg/mg

The chemical-specific soil concentration will be based on soil EPCs described in Section 4.2.1.1.

4.2.1.4 Outdoor Vapor EPCs

Excavation workers may inhale VOCs that migrate from soil to outdoor air in an excavation pit. The constituent concentrations in air due to vapor emissions from soil are calculated as follows:

$$C_{air} = C_{soil} \times J \times {}^{C}/_{Q}$$

where *J* is the normalized average vapor flux (J_v) and *C/Q* is the air concentration normalized to a unit flux (i.e., a site-specific air dispersion factor).

The flux J_v from unsaturated soil may be estimated using an unsteady-state model derived by Jury et al. (1983). The full version of the model can account for VOCs present in a specified depth interval (i.e., from a top depth Z_1 to a bottom depth Z_2). This means the model can be used where VOCs are at ground surface ($Z_1 = 0$), or where VOCs are at depth or covered by VLT ($Z_1 > 0$). The equation for J_v is given in Appendix B.

The parameters proposed for modelling vapor concentrations in an excavation pit are available in Appendix B**.** C/Q will be calculated using the default variables for Las Vegas, NV and the area of the excavation (USEPA 2002b). Justification for model parameters are based on site-specific estimates and EPA guidance.

4.2.1.5 Indoor Vapor EPCs

VOCs may volatilize and migrate upward through soil and infiltrate indoor air spaces. Volatile chemicals in groundwater also may migrate to indoor air, but EPA guidance (2004a) recommends evaluation of groundwater as a source only if impacted groundwater is present at depths less than 100 feet bgs. In the Process Areas, the depth to groundwater exceeds this depth and will not be considered as a potential source of vapors in indoor air.

The Johnson & Ettinger Vapor Model (USEPA 2004a) will be used to model vapor inhalation exposures in indoor air. The model couples both advective and diffusive flow of soil gases and considers the resistance caused by the foundation on the infiltration rate into a building. Soil analytical data selected based on chemical concentration and location will be entered into the model to estimate vapor concentrations in indoor air for the future worker and hypothetical resident scenarios.

Two sets of building dimensions will be used, at EPA's request, to model indoor vapor concentrations for a future worker. The building dimensions for one building are the dimensions of the current warehouse at the Site, and for a second building the dimensions are based on EPA guidance for a residential building. The residential-sized building is assumed to represent a small office building that could be constructed in the future. The model assumptions and rationale for their selection are available in Appendix B.

4.2.2 General Exposure Parameters

General exposure parameters applicable to nearly every pathway are presented here (Table 10) and the specific exposure equations for incidental ingestion, inhalation, dermal contact, and radiation are displayed in the following sections. The following general exposure parameters, exposure frequency and exposure duration, apply to the incidental ingestion, dust inhalation, and dermal contact pathways for all COPCs. Body weight and averaging time exposure parameters apply to non-radionuclide COPCs only. Decay constant (lambda) applies only to radionuclides.

Table 10: Exposure factors for receptors at Process Areas (OU-3)

Category	Exposure Factor	Symbol	Units	Outdoor Worker		Construction/ Excavation Worker		Indoor Worker[1]		Trespasser Adolescent	Future Resident Adult[2]		Future Resident Child[2]		Reference[3]
				CTE	RME	CTE	RME	CTE	RME	RME	CTE	RME	CTE	RME	
Soil/Dust Ingestion	Soil Ingestion Rate	IR_s	mg/day	50	100	165	330	25	50	100[a]	35[b]	100	71[b]	200	USEPA 2002c
	Fraction of Intake as Soil	F	unitless	1		1		1		1	0.45		0.45		USEPA 1994
	Relative Oral Bioavailability (Arsenic only)	RBA	unitless	0.6		0.6		0.6		0.6	0.6		0.6		USEPA 2012a
Dust / Vapor Inhalation	Inhalation Exposure Time	ET	hours/day	8		8		8		5[a]	24		24		USEPA 2014b
	Inhalation Rate	InhR	m^3/day	20.7		20.7		20.7		21.9	20.7		11.7		USEPA 2011a
Dermal Contact	Skin Surface Area	SA	cm^2	3527		3527		3527		5790[c]	6032		2373		USEPA 2014b
	Soil Adherence Factor	AF	mg/cm^2-event	0.12		0.3		0.07		0.03[d]	0.07		0.2		USEPA 2014b USEPA 2002c
	Event Frequency	EV	events/day	1		1		1		1	1		1		USEPA 2004b
External Radiation	Shielding Factor	SH	unitless	1		1		0.4		1	0.4		0.4		USEPA 2000a,b
	Exposure Time	ET	hours/ hours	0.33		0.33		0.33		0.21	0.073 (outdoor) 0.684 (indoor)				USEPA 2000a,b
General	Exposure Frequency	EF	days/year	165	225	20[a]	200[a]	250		50[a]	350		350		USEPA 2014b USEPA 2002c
	Duration of Exposure	ED	years	9	25	1[a]		9	25	5[a]	20		6		USEPA 2014b
	Body Weight	BW	kg	80		80		80		56.8	80		15		USEPA 2014b
	Averaging Time for Cancer	AT_c	days	25550		25550		25550		25550	25550		25550		USEPA 1989
	Averaging Time for Non-Cancer	AT_{nc}	days	3285	9125	365		3285	9125	1825	7300		2190		USEPA 1989
	Decay constant	λ	1/year	Isotope-specific: Radium-226 (0.000433); Radium-228 (0.121; Thorium-232 (~0); Uranium-238 (~0)											USEPA 2002e

Notes:
1. For indoor worker, all soil contacted is assumed to be contacted as indoor dust derived from soil.
2. These scenarios will only be evaluated if enforceable land use restrictions are not in place.
3. All exposure parameters are USEPA defaults from specified source unless designated by a separate footnote (see citations and footnotes below).

[a] Site-specific
[b] Derived from von Lindern et al. (2016).
[c] Skin surface area for 11 to <16 yr olds assuming head, hands, arms, and legs are exposed (USEPA 2011a).
[d] Soil adherence factor calculated using soil-loading rates for adolescents playing outdoor sports (USEPA 2011a) and skin surface area.

4.2.2.1 Exposure Frequency

Exposure frequency (EF) describes how many days someone may have contact with exposure media in a typical one-year period. Values for exposure frequency vary for each scenario.

EPA does not provide guidance for selection of exposure frequency for an excavation or construction worker scenario. For this baseline HHRA, EPA recommended an exposure frequency of approximately 6.7 months, or 200 days/year, onsite. This value was recommended as an RME value. For the CTE value, it is assumed that an excavation or construction worker is hired for one short-term project lasting 1 month, or 20 days/year.

An RME exposure frequency value of 225 days/year for outdoor workers is recommended (USEPA 2002b; USEPA 2002c). An exposure frequency of 165 days/year will be used for the CTE value, assuming the outdoor worker cannot work 3 months or 60 days/year due to inclement weather and other responsibilities.

EPA (2002c) recommends an exposure frequency of 250 days/year for indoor workers. This value is based on an average 5-day work week, with 10 days off for vacation. An exposure frequency of 250 days/year also will be used for the CTE value.

Guidance is not available for the number of days that trespassers could be assumed to enter a site. ARC proposed an exposure frequency of seven days per year for the trespasser, which was considered adequately protective given the presence of perimeter fencing, personnel maintaining Site security, and active mining in OU-3. Also, this value is consistent with the exposure frequency used for the trespasser scenario at the Leviathan Mine Site (AMEC Geomatrix 2016). However, EPA requested use of an exposure frequency of 50 days per year for this baseline HHRA.

The default exposure frequency for an adult and child resident is 350 days per year for both the RME and CTE conditions (USEPA 2014b). This assumes that the resident is home all but two weeks per year.

4.2.2.2 Exposure Duration

Exposure duration (ED) is the length of time during which someone may be exposed via a specific exposure pathway. It varies depending on the population and the activity, and often involves consideration of the length of residence in an area. Assumptions for the short-term, reclamation construction and excavation workers, long-term post-reclamation indoor and outdoor workers, a trespasser, and future residents are provided below.

The excavation and construction workers are assumed to work on a short-term reclamation project that lasts less than 1 year (e.g., building demolition, digging trenches to lay utility lines, pour foundations). If multiple construction projects occur on the Site, it will be assumed that different workers will participate on each project. The recommended exposure duration for the excavation and construction worker is 1 year for both the RME and CTE scenarios.

EPA (2014b) recommends an RME exposure duration of 25 years for a typical worker. This value is based on U.S. Census data. It represents the upper-bound estimate for the amount of time a person works at the same location. The worker CTE exposure duration may be the same or less than a CTE exposure duration that would be suitable for a resident. The 50th percentile for years lived at the same house is 9 years (USEPA2011a). Therefore, it will be assumed that the exposure duration for a worker is the same value. These values are recommended for the post-reclamation indoor and outdoor worker scenarios.

The trespasser scenario assumes that an adolescent from the surrounding community accesses the Site without permission. The exposure duration for the trespasser is 5 years for the 11 to <16 age group.

The exposure durations for the hypothetical future resident adult and child are 20 years and 6 years, respectively, for both the RME and CTE scenarios (USEPA 2014b).

4.2.2.3 Body Weight

The USEPA (2014b) default body weight (BW) is 80 kg for an adult worker and resident. The trespasser is assumed to be an adolescent/teenager. The recommended body weight is 56.8 kg for an 11 to <16 old, which comes from the Exposure Factors Handbook (USEPA 2011a). The child resident default body weight is 15 kg (USEPA 2014b). The body weight parameter is not included in dose estimation for radionuclides (USEPA 1989).

4.2.2.4 Averaging Time

The averaging time (AT) is the time period over which an exposure is averaged. The averaging times for evaluating carcinogenic and noncarcinogenic effects are different. For evaluating carcinogenic effects, chemical intakes are averaged over the full 70-year lifetime (25,550 days) to be consistent with the way carcinogenic slope factors are derived (USEPA 1989).

When evaluating noncarcinogenic effects, COPC intakes are averaged over the exposure duration (USEPA 1989). For noncarcinogenic effects, the exposure duration (typically expressed in years) is converted to days and used as the averaging time. For example, the averaging time for evaluating noncarcinogenic effects for a worker is 25 years (9,125 days). The averaging time for the trespasser is 1,825 days and the averaging time for the construction worker is 365 days. The averaging times for the adult and child resident are 7,300 and 2,190 days, respectively, and a combined child-adult averaging time is 9,490. The averaging time parameter is not included in dose estimation for radionuclides (USEPA 1989).

4.2.2.5 Decay Constant

The decay constant (λ) is an isotope-specific factor calculated as 0.693/half-life in years (USEPA 2002e). The decay constant combined with the exposure time parameter "T" describes the number of half-lives occurring within the total duration of exposure. "T" is equal to the exposure duration "ED." Decay constants for radium (226, 228 + daughters "D") are listed in Table 10. The decay constant terms are omitted for thorium and uranium. Due to the extremely long half-lives of these radionuclides, there is effectively no change in concentration over the time intervals being evaluated.

4.2.3 Soil Ingestion-specific Exposure Parameters

Soil ingestion intakes are modified by additional exposure parameters, listed in Table 10 and described here. Intake for non-radionuclides is calculated according to the following equations:

$$\text{Intake}_{ing} = \frac{EPC_{soil,\ dust} \times IR_{soil,dust} \times F \times RBA \times ET \times EF \times ED \times CF}{AT \times BW}$$

Where CF is a conversion factor (1 kilogram/1E+06 milligrams). See Table 10 for exposure parameter abbreviations.

Dose for radionuclides is calculated according to the following equation, where the term "$1\text{-}e^{-\lambda T}$" represents the number of half-lives that will occur during the exposure duration, "T" is time, and "λ" is the decay constant.

$$Intake_{ing} = \frac{EPC_{soil,\ dust} \times IR_{soil,dust} \times EF \times ED \times (1 - e^{-\lambda T}) \times CF}{T \times \lambda}$$

Where CF is a conversion factor (1 gram/1,000 milligrams). The "1-e-λt" and "T x λ" terms are omitted for uranium and thorium as discussed above. See Table 10 for exposure parameter abbreviations.

4.2.3.1 Fraction of Intake as Soil

The outdoor worker and construction worker are assumed to spend the entire eight-hour workday outside and therefore 100 percent of soil ingestion is from outdoor soil. The trespasser is also assumed to spend the entire duration of his/her exposure outdoors, and ingests only outdoor soil. The indoor worker is assumed to spend the entire workday inside, where 100 percent of the indoor dust contact is conservatively assumed to be derived from surface soil. For the hypothetical CTE and RME child and adult resident, exposure would occur directly via incidental ingestion of soil and indirectly via incidental ingestion of indoor dust that originates from soil. The intake of soil-derived constituents in dust will be apportioned between soil and dust with 45 percent of all intake coming from soil and 55 percent from dust (USEPA 1994).

4.2.3.2 Soil Ingestion Rate

Soil ingestion rate (IR) represents the quantity of soil that may be incidentally ingested via hand-to-mouth contact on a daily basis. Soil ingestion rates are based on the latest USEPA guidance for indoor and outdoor workers (2014b), and the default USEPA (2002c) guidance for construction workers. The RME values are the default values assigned by USEPA: 100 mg/day for an outdoor worker, 50 mg/day for an indoor worker, and 330 mg/day for a construction worker. The trespasser was assigned the same 100 mg/day soil ingestion rate as the outdoor worker. The CTE values are half of the RME values.

For the resident scenarios, current default values are 200 mg/day for the RME child and 100 mg/day for the CTE/RME adult scenario (USEPA 2011a, 2014b). Recent soil ingestion data re-analyses by Stanek et al. (2012a,b) result in soil ingestion rates that are roughly one-fourth of current default values for the resident child. Three other analyses, two by USEPA scientists and one conducted for Health Canada, have derived soil ingestion rates based on modeling hand-to-mouth activity. Ozkaynak et al. (2011) predicted a mean soil ingestion rate of 68 mg/day for children ages 3 through 6 years old. The Health Canada group predicted 61 mg/day for toddlers age 7 months through 4 years old (Wilson et al. 2013). Most recently, von Lindern et al. (2016) estimated children's soil/dust ingestion rates through a retrospective analysis of blood lead biomonitoring results from the Bunker Hill Superfund Site in Idaho and concluded that USEPA default soil ingestion rate assumptions cause USEPA lead risk model to markedly overestimate the contribution of soil lead to child BLLs. The average of the age-specific (0 to 6 years) soil ingestion rates from von Lindern et al. (2016) is 71.3 mg/day, which is consistent with the evaluations by Ozkaynak et al. (2011) and Wilson et al. (2013). Based on these updated analyses, the child resident soil ingestion rates of 71 mg/day and 200 mg/day will be applied to the CTE and RME scenarios, respectively. The current default adult soil ingestion rate of 100 mg/day will be applied to the RME scenario and a value equal to half the child CTE, 35 mg/day, will be applied to the adult CTE scenario.

4.2.3.3 Relative Bioavailability Adjustment

The relative bioavailability adjustment (RBA) adjusts the intake to reflect differences in the bioavailability of a constituent in a site exposure medium compared with its bioavailability in the medium used in the toxicity studies forming the basis for the toxicity values. Site-specific RBA values are not available. There is sufficient evidence that the assumption of 100 percent relative bioavailability of PAHs in soil overestimates exposure but quantitation of RBA is complicated by many factors influencing relative bioavailability in soil (Ruby et al. 2016). Default RBA values are available only for arsenic and lead. USEPA (2012a) recommends a 0.6 default value RBA for arsenic. USEPA (2012a) states this is preferable to assuming 100 percent of arsenic is bioavailable in soil, which may overestimate risks. The 60 percent RBA value was derived from a collection of over 100 literature studies estimating soil arsenic RBA. Use of the RBA adjustment for lead assessment is discussed in Section 5.5.

4.2.4 Dermal Pathway-specific Exposure Parameters

Soil dermal intakes are modified by additional exposure parameters, listed in Table 10 and described here. Dermal intake is calculated using the following equation:

$$Intake_{derm} = \frac{EPC_{soil,\ dust} \times AF \times SSA \times EV \times EF \times ED \times ABS_d \times CF}{AT \times BW}$$

Where CF is a conversion factor (1 kilogram/1E+06 milligrams). See Table 10 for exposure parameter abbreviations.

4.2.4.1 Soil Adherence Factor

The soil adherence factor (AF) represents the amount of soil per unit skin surface area that adheres to skin during contact with surface soil and dust. Constituents in soil adhered to the skin then may be absorbed across the skin and into systemic circulation. The soil AF of 0.12 mg/m^3-event for the outdoor worker assumes the worker's face, hands, and forearms come into contact with soil or indoor dust (USEPA 2014b). The AF is the arithmetic mean of weighted average body part-specific mean adherence factors for adult commercial and industrial activities. A mean AF of 0.07 mg/cm^2-event, the recommended value for residents, will be used to represent the indoor worker (USEPA 2014b). The USEPA (2002c) default adherence factor for construction workers is 0.3 mg/cm^2-event, and also assumes the face, hands, and forearms come into contact with soil. This is a 95^{th} percentile value derived from soil-loading rates measured in a sample of construction workers (USEPA 2004b).

The soil AF for the trespasser was calculated using soil-loading rates presented in the EPA Exposure Factors Handbook (USEPA 2011a). The activity judged most comparable to trespassing was outdoor sports, where soil loadings were measured in children aged 13 to 15 years while playing soccer. Soil loading rates measured for the face, arms, hands, and legs were weighted according to body part surface area for the 11 to <16 year old age group. The sum of soil-loading was then divided by the skin surface area to obtain the soil AF value of 0.03 mg/cm^2-event.

Default soil AFs for the child and adult resident, values of 0.2 and 0.07 mg/cm^2-event respectively, will be applied in the HHRA (USEPA 2004b, 2014b). The child AF represents an upper-bound estimate for soil contact and the adult value represents the geometric mean value for a high-contact activity (USEPA 2004b).

4.2.4.2 Skin Surface Area

The skin surface area (SSA) parameter also applies to dermal exposures, and represents the total amount of skin that may come into contact with soil across which constituents may be absorbed. USEPA's default SSA of 3,527 cm^2 for contact with soil by all workers is the weighted average of mean surface area for the head, hands, and forearms for males and females 21 years of age and older (USEPA 2014b). A 5,790 cm^2 SSA was calculated for the trespasser based on mean surface area measurements for the head, hands, arms, and legs for 11 to <16 year olds (USEPA 2011a). It is reasonable to assume that the trespasser would be wearing shorts and a short-sleeved/sleeveless top while trespassing, resulting in a higher skin surface area exposed to soil. Default SSAs for the child and adult resident are 2,373 and 6,032 cm^2, respectively, which are based on the 50^{th} percentile values for the head, forearms, hands, lower legs, and feet (USEPA 2014b).

4.2.4.3 Event Frequency

We propose using the EPA (USEPA 2004b) default event frequency for dermal contact of one event per day.

4.2.4.4 Absorption Fraction

EPA recommends using a dermal absorption fraction (ABS_d) to account for the fraction of a substance that desorbs from soil and is absorbed across the skin surface relative to the amount of the substance in soil. ABS_d values are chemical-specific and their selection will be guided by EPA guidance (USEPA 2004b). ABS_d values are listed with other chemical-specific factors in Table 12 to Table 14. With the exception of VOCs and SVOCs, organic substances tend to have greater absorption via the dermal pathway than inorganic substances. There are no default ABS_d values for VOCs as it is assumed that VOCs will volatilize from the soil adhered to skin and will not be absorbed across the skin surface.

For inorganic substances in soil, very little absorption occurs via the dermal pathway; default ABS_d values have been assigned for only arsenic and cadmium (USEPA 2004b). Cadmium is not a COPC in the baseline HHRA. For arsenic, the default ABS_d of 0.03 (USEPA 2004b) is highly protective. A 2007 mammalian study showed that dermal absorption of arsenic is negligible and highly overestimated by the EPA default ABS_d value (Lowney et al. 2007). Following application of wet and dry soil, urinary arsenic excretion could not be distinguished from background. For dermal absorption of arsenic in a variety of soil matrices, Lowney et al. (2007) estimated arsenic absorption of 0.5 percent or less. For the baseline HHRA, an ABS_d value of 0.5 percent (0.005) will be used.

4.2.5 Inhalation-specific Exposure Parameters

EPA recommends using the exposure concentration (EC) approach when calculating risks for inhaled COPCs. The EC takes into account the interaction of the inhaled substance with the respiratory tract, which is more accurate than applying a simple function of inhalation rate and body weight (USEPA 2009a). The unit for EC is milligrams per cubic meter (mg/m^3), which differs from the intakes by ingestion and dermal contact. Because of this, there are unique toxicity values ECs are compared to, called reference concentrations (RfCs) for evaluation of noncarcinogens and unit risk factors (URFs) for evaluation of carcinogens. Inhalation exposures for non-radionuclides are calculated using the following equation:

$$EC_{inh} = \frac{C_{air} \times ET \times EF \times ED}{AT \times CF}$$

Where CF is a conversion factor = (24 hours/1 day). See Table 10 for exposure parameter abbreviations.

Exposure parameters relevant to the soil/dust inhalation pathway include exposure time, exposure frequency, exposure duration, and averaging period, which will be the same as those used for soil/dust ingestion. Among these parameters, exposure time (ET) is the only exposure factor unique to the inhalation pathway. Exposure time refers to the amount of time an individual is exposed to a constituent, and is measured in hours/day. Exposure time is assumed to be 8 hours/day for all workers, 5 hours/day for the trespasser, and 24 hours/day for the residents.

Radiation dose via the inhalation pathway is calculated according to the following equation and will be applied to the outdoor construction worker for inhalation of particulates:

$$Intake_{inh} = \frac{C_{air} \times InhR \times ET_o \times EF \times ED \times (1 - e^{-\lambda T})}{T \times \lambda}$$

The "$1-e^{-\lambda t}$" and "$T \times \lambda$" terms are omitted for uranium and thorium as discussed above. See Table 10 for exposure parameter abbreviations.

Exposure parameters for inhalation of radionuclides include inhalation rate (InhR), outdoor exposure time (ET_o), and other parameters previously described. Inhalation rates listed in Table 10 are mean age-weighted 95th percentile values calculated using rates by life-stage in EPA (2011a).

4.2.6 External Radiation Pathway

For external exposure to radionuclides, the exposure pathway is from surface soil from 0 to 15 cm bgs. The exposure dose is calculated using the following equation:

$$Exposure\ (^{pCi\text{-}yr}/_{g}) = \frac{EPC \times EF \times ED \times (1 - e^{-\lambda T}) \times SH}{T \times \lambda}$$

Where SH is a 'gamma shielding factor' used for indoor exposures only and where CF is a conversion factor (1 year/365 days). The "1-e-λt" and "T x λ" terms are omitted for uranium and thorium as discussed above. See Table 10 for exposure parameter abbreviations.

Where the product of the EPC, exposure frequency, exposure duration, number of decay half-lives during the exposure duration, and exposure time (ET) is divided by the product of time (T) and the decay constant (λ). The term exposure time relates to the fraction of time spent either indoors or outdoors, and for indoors this parameter is modified by SH, representing the shielding effect provided by buildings or other structures. The default indoor shielding factor is 0.4, which represents 60 percent shielding (USEPA 2000a,b). Outdoor exposures are assumed to occur with no shielding between the individual and the soil (USEPA 2000a,b).

4.2.7 Early Life Exposure to Mutagenic COPCs

EPA provides additional guidelines for early life exposures to carcinogenic substances (USEPA 2005a). For those COPCs for which a mode of action has not been established or if the mode of action is not mutagenic, exposures are estimated according to previously established EPA guidelines. When a COPC's mode of action is mutagenic, EPA provides methods for adjustment of childhood exposures to account for a potentially increased cancer risk later in life (USEPA 2005a). For the Process Areas, carcinogenic PAHs will be evaluated as mutagens, resulting in adjustment of exposure estimates for the child resident along with other age-specific exposure parameters. Consistent with the EPA guidance, a ten-fold adjustment will be applied to exposures occurring for children ages 0 to 2 years and a three-fold adjustment will be applied to

exposures occurring for children ages 2 to 16 years. No further adjustments will be made for exposures occurring after age 16.

5. TOXICITY ASSESSMENT

The purpose of the toxicity assessment is to summarize health effects that may be associated with exposure to COPCs included in the risk assessment and to identify doses that may be associated with those effects. The focus is on effects associated with long-term, repeated exposures and on effects that could be associated with the concentrations and pathways of exposure that are relevant in environmental settings. Toxicity values developed based on dose-response assessments for these relevant adverse effects are identified. These toxicity values are numerical expressions of chemical dose and response and vary based on factors such as the route of exposure and duration of exposure.

Toxicity values have been developed for many chemicals by government agencies, including EPA, the U.S. Agency for Toxic Substances and Disease Registry (ATSDR), and the World Health Organization. As recommended by EPA in *Human Health Toxicity Values in Superfund Risk Assessments* (USEPA 2003), the primary sources that will be consulted for selection of toxicity values are, in order of priority, EPA's Integrated Risk Information System (IRIS), EPA's Provisional Peer Reviewed Toxicity Values (PPRTVs) from the National Center for Environmental Assessment/Superfund Health Risk Technical Support Center, screening values in the appendices to PPRTV documentation, and EPA's Health Effects Assessment Summary Tables (HEAST). If neither IRIS toxicity values nor PPRTVs are available or considered technically reliable, then a suitable value will be proposed. For radionuclides, HEAST will be used to obtain toxicity values (USEPA 2001).

IRIS also was relied upon for weight-of-evidence (WOE) classification of each COPC; WOE relies upon available data to determine if a substance is a human carcinogen. Human and animal studies and other relevant information are evaluated to assign a WOE category to each substance: carcinogenic to humans, likely to be carcinogenic to humans, suggestive evidence of carcinogenic potential, inadequate information to assess carcinogenic potential, and not likely to be carcinogenic to humans (USEPA 2005b). Consideration of the WOE classification for each COPC is useful in understanding uncertainties underlying cancer risk estimates, particularly for COPCs for which evidence is only suggestive of carcinogenicity.

Threshold-response constituents may cause adverse health effects only once a specific dose, the threshold dose, has been exceeded. Doses below the threshold are not expected to result in adverse health effects. Genotoxic or carcinogenic chemicals are assumed to have no threshold of safety, such that the only dose which causes no adverse effect is zero[9]. Threshold and non-threshold toxicity values are discussed in Sections 5.1 and 5.2, respectively. Some constituents have both threshold and non-threshold toxicity values reflecting different health endpoints. Those constituents are evaluated using both types of values.

Duration of exposure is an important factor to consider when selecting appropriate toxicity values for the HHRA. This is because the exposure levels that cause toxic effects vary depending on how long the exposure occurs. For example, with regular, repeated exposure to a chemical over many years (typically referred to as chronic exposure), much lower concentrations (and resulting doses) of a chemical could be associated with toxic effects, compared with concentrations that would be identified as causing toxic effects in a person who is exposed to a chemical for only 1 day (referred to as an acute exposure). Intermediate duration exposures (referred to as subchronic exposures) are more likely to lead to toxic effects at intermediate concentrations. This baseline HHRA will evaluate risks associated with scenarios involving

[9] Some carcinogens are not genotoxic and may have a threshold below which risks are negligible.

subchronic and chronic exposures to COPCs on and around the Process Areas OU; however, all exposures will be evaluated as chronic exposures due to the limited availability of subchronic toxicity values. Use of chronic toxicity values for all exposures may overestimate the toxicity in scenarios where exposures are subchronic.

5.1 Threshold Responses

The potential for threshold, or noncancer, health effects from chronic exposures (i.e., exposure duration greater than 7 years) is evaluated by comparing the estimated daily intake with a reference dose (RfD) for oral exposure routes or reference concentration (RfC) for inhalation exposure routes. The toxicity values represent average daily exposure levels at which no adverse effects are expected to occur with chronic exposures. If an RfD is exceeded, further evaluation is needed to determine if there is a risk of adverse effects. For example, subchronic RfDs or RfCs could be applied when exposures are less than 7 years, as is the case with children (i.e., 0 to 6 years), trespassers (5 years), and excavation workers (i.e., ≤ 1 year). Exceedance of the RfD in these scenarios does not necessarily indicate a risk if the chronic RfD improperly characterizes the toxicity observed at subchronic exposures. RfDs are expressed as the amount of substance (mg) per unit body weight (kg) per unit time (day), or mg/kg-d, and are most often based on oral exposures. RfCs are expressed as the concentration of a substance (mg) per cubic meter of air (m^3).

The RfDs and RfCs are generally based on laboratory animal studies or epidemiological studies in humans. Until recently, RfDs and RfCs were typically calculated by first identifying the highest concentration or dose that does not cause observable adverse effects (the no-observed-adverse-effect level, or NOAEL) in the study subject. If a NOAEL could not be identified from the study, a lowest-observed-adverse-effect level (LOAEL) was used. This dose or concentration, termed the point of departure, was then divided by uncertainty and modifying factors to calculate the RfD or RfC.

EPA now employs use of the benchmark dose (BMD) approach in defining the point of departure for derivation of RfDs and RfCs. BMDs correspond to specific response levels near the low end of the observed dose-response range. EPA (2012b) recommends using the 95 percent lower confidence limit of the BMD corresponding to a 10 percent extra risk ($BMDL_{10}$). Use of the 95 percent lower bound $BMDL_{10}$ as the point of departure is advantageous to using a NOAEL or LOAEL because it is not confined to an experimental dose, accounts for the shape of the dose-response curve, and relies on a consistent response level, among other reasons (USEPA 2012b).

The uncertainty and modifying factors that are applied to the selected point of departure can span several orders of magnitude. The uncertainty factors are applied to account for limitations in the underlying data and are intended to ensure that the toxicity value calculated based on the data will be unlikely to result in adverse health effects in exposed human populations. For example, an uncertainty factor of 10 may be used to account for interspecies differences (if animal studies were used as the basis for the calculation), and another factor of up to 10 may be used to address the potential that human subpopulations such as children or the elderly may have increased sensitivity to the chemical's adverse effects (if these populations were not adequately evaluated). Thus, variations in the strength of the underlying data are reflected in the uncertainty factors used to calculate the toxicity values and in the low, medium, or high confidence ratings assigned to those values (USEPA2002f).

5.2 Non-threshold Responses

A component of assessing non-threshold, or carcinogenic, health effects is a qualitative evaluation of the extent to which a chemical is a human carcinogen. As with threshold

substances, human epidemiological data often are not available and animal studies are used to quantify toxicity of carcinogens. Quantifying the low dose estimates of carcinogenic potential requires the use of mathematical models which assume a linear curve in the extrapolation from the high doses applied in animal toxicity studies or reported in human epidemiological studies to low doses observed in the environment. The models calculate the 95 percent confidence limit of the slope of the curve that describes the dose-cancer potency relationship, called a cancer slope factor (CSF). CSFs describe the carcinogenic potency of a constituent and are used to provide an upper bound estimate for the probability of cancer occurrence in a population. The CSF is expressed as the inverse of a dose (i.e., $(mg/kg\text{-}d)^{-1}$) and quantifies the number of predicted cancers per unit dose. Thus, the dose multiplied by the CSF equals the expected cancer risk. CSFs are used for oral or dermal exposures and unit risk factors (URFs) $(\mu g/m^3)^{-1}$ are used for inhalation exposures. CSFs and URFs are upper-bound estimates of the carcinogenic potency of chemicals.

5.3 Radiological Responses

The primary effects of chronic exposure to radioactive chemicals are carcinogenicity (ability to cause cancer), mutagenicity (ability to induce genetic mutations), and teratogenicity (ability to induce birth defects). Mutagenicity may occur in either somatic (body) or germ (reproductive) cells; the latter resulting in genetic or inherited defects.

More is known regarding the effects of exposure to high doses of radiation resulting from industrial accidents rather than low doses typically observed in the environment. For this reason, the effects of low dose and low frequency exposures are usually extrapolated from studies of high dose-response effects. The most important dose-response effect for environmental exposures is carcinogenicity, followed by mutagenicity (USEPA 1989, 2001). For these two effects, it is assumed that there is no threshold or level below which no effect is expected. There may be a threshold for teratogenic effects which, combined with a limited duration of exposure (9 months) and importance of timing to induce effects, shifts the greatest relative risk to carcinogenicity and mutagenicity. Risk of cancer is potentially greater than risk of genetic mutations, because mutations may be induced only during the reproductive lifetime of an individual, whereas cancer may be induced at any point during the life span. Furthermore, mutagenic effects resulting from exposure to radiation have been observed only in laboratory animals. If mutagenic effects were to occur, the risks would be distributed over several generations. For these reasons, only carcinogenicity resulting from exposure to radionuclides is evaluated in risk assessment (USEPA 1989, 2001). EPA classifies all radionuclides as known human carcinogens (USEPA 2001).

CSFs for radionuclides are taken from EPA's on-line PRG calculator and reproduced in Table 14 (EPA 2016f). The CSFs represent central estimates of age-averaged, excess lifetime cancer incidence per unit of activity.

5.4 Derivation of Dermal Toxicity Values from Oral Toxicity Values

The majority of toxicity values are based on studies in which animals were administered a substance via oral pathways (e.g., ingestion in food or feeding tube administration). Dermal RfDs and CSFs are largely unavailable and so route-to-route extrapolation is applied for their derivation (USEPA 2004b). This extrapolation procedure adjusts oral toxicity values, which are based on administered doses, to represent absorbed doses. The absorbed dose toxicity values may be used to assess risks of dermal exposures that are calculated as absorbed doses. Such route-to-route extrapolation introduces some uncertainty because the distribution of absorbed chemicals may differ between oral and dermal exposures.

An absorption factor reflecting the percentage of a dose of a substance absorbed in the gastrointestinal tract (ABS_{GI}) is derived for the exposure medium used in the study(ies) that forms the basis of the toxicity value. To calculate a dermal RfD or CSF, the oral value is modified by the ABS_{GI} as shown here and discussed in EPA guidance (USEPA 2004b):

$$RfD_{derm} = RfD \times ABS_{GI}$$

$$CSF_{derm} = \frac{CSF}{ABS_{GI}}$$

The magnitude of the toxicity factor adjustment is inversely proportional to the ABS_{GI}. For example, for a substance that is completely absorbed in the GI tract (ABS_{GI}=1), the oral and dermal toxicity values are the same. However, when absorption of the chemical by the GI tract is low (i.e. ABS_{GI}=0.1), the adjusted dermal toxicity value is one tenth of the original oral RfD or ten times higher than the original CSF.

When assessing dermal exposures in this risk assessment, the oral RfDs and CSFs will be adjusted to reflect absorbed dose. In general, organic chemicals have relatively high absorption by the GI tract, and are assumed to have an ABS_{GI} of 1 (USEPA 2004b). When absorption across the GI tract is more than 50 percent, it is also assumed to have a value of 1 (USEPA 2004b). This assumption may lead to a slight underestimation of risk. The extent of the underestimation is inversely proportional to the actual GI absorption. All default ABS_{GI} values that will be used in the HHRA are listed in the Table 12 and Table 14.

5.5 Assessment of Lead Toxicity

Exposure to lead results in a wide range of noncarcinogenic health effects; however, some studies suggest there is no 'safe' level below which no adverse effects occur (ACLLP 2012; CDC 2012). Young children are the population of greatest concern for residential exposures because they are expected to have higher lead absorption rates and higher exposure per unit body weight than adults. Children are also more susceptible to the effects of lead than adults (USEPA 2006; NTP 2012). When considering adults, women of child-bearing age are of greatest interest because of the potential for adverse effects to occur in the fetus as a result of elevated maternal blood lead.

EPA does not have standard toxicity values for lead because a no-effect dose has not been identified. Instead, EPA has identified a target blood lead level (10 µg/dL) to use in risk management. EPA's Integrated Exposure Uptake Biokinetic (IEUBK) model and Adult Lead Model (ALM) will be used to estimate the percent of the child and adult female populations, respectively, that could potentially have blood lead levels above 10 µg/dL if they contact Process Areas soil. Because 5 µg/dL has been specified as a population reference level for lead by Centers for Disease Control and Prevention (CDC; ACLLP 2012), the percent potentially exceeding 5 µg/dL will also be determined. IEUBK and ALM model input values are provided in Appendix C.

5.6 Toxicity Profiles

Table 12 through Table 15 list toxicity values that will be used in assessing risks for COPCs. A brief discussion is provided here for two COPCs, arsenic and thallium, for which additional explanation supporting the selected toxicity value is warranted. Also, the approach for evaluating carcinogenic PAHs also is presented in this section. Toxicity profiles for COPCs will be included in the baseline HHRA report.

5.6.1 Arsenic URF

In 1984, the EPA derived a URF based on five sets of data from the Anaconda and Tacoma smelters, using a weighted average of the five estimates to obtain the URF of 4.3E-03 per $\mu g/m^3$. As of 2016, EPA has not updated the 1984 analysis. In 2000, the World Health Organization (WHO) reviewed new studies and updated their unit risk factor to 1.5E-03 per $\mu g/m^3$, considering the Swedish smelter worker data and updates for the Tacoma workers. The WHO analysis was supported by an analysis by Viren and Silvers (1994), using updated results from the Tacoma cohort with the Swedish cohort to estimate a composite unit risk. In 2012, the Texas Commission on Environmental Quality (TCEQ) conducted a detailed literature search and identified epidemiological studies that could be used to update an assessment of arsenic inhalation risks (Erraguntla et al. 2012). Epidemiology studies of workers from four smelters were considered by TCEQ to provide adequate dose–response data for an updated assessment:

- Tacoma, Washington copper smelter (Enterline et al. 1995, Enterline et al. 1987a,b)
- Anaconda, Montana copper smelter (Lubin et al. 2008, 2000)
- Ronnskar, Sweden copper smelter (Järup et al. 1989, Viren and Silvers 1994)
- UK tin smelter (Jones et al. 2007)

TCEQ used data from the Tacoma, Anaconda, and Ronnskar cohorts to derive an updated URF for lung cancer mortality from exposures to arsenic. The UK tin cohort dataset was not used due to potential confounding by other chemicals, as well as the use of a different dose metric. A URF of 1.5E-04 per $\mu g/m^3$ was calculated based on a combined analysis approach to weight the individual URFs from updated reports on the three cohorts. The TCEQ URF will be used to estimate arsenic cancer risks for OU-3.

5.6.2 Thallium RfD

Toxicity data for thallium are limited, with the majority of human toxicity information limited to reports of poisonings, accidental exposures, and suicide attempts and unreliable epidemiologic studies (USEPA 2009b). Also, few animal toxicity studies are reported. Animal toxicity studies have reported hair loss (i.e., alopecia), which is generally reversible following cessation of exposure. Public comments, including those by Schoof and Bradley (2008), identified flaws in EPA's quantitative assessment of thallium toxicity, specifically the overestimation of toxicity due to a failure to account for the mass of the compound used in the critical toxicity study, lack of relevance of the toxicity study finding of hair loss in rats, inadequate support for the selected biologically significant endpoint, and lack of human data supporting the potential for risk at low exposure levels.

After considering the public comments, EPA (2009b) concluded that weaknesses in the underlying database do not support quantitative toxicity dose response assessment. As a result, EPA did not adopt a new reference dose[10], but also withdrew the previous reference doses for various thallium salts. Currently, no toxicity values are provided for thallium by EPA's IRIS (USEPA 2016d). During late 2012, EPA issued a document titled *Provisional Peer-Reviewed Toxicity Values of Thallium and Compounds* (EPA 2012c). Consistent with the 2009 toxicological review conclusions, the 2012 document concludes that it is inappropriate to derive a subchronic or chronic provisional RfD (p-RfD) for thallium and compounds. Nevertheless, "provisional screening values" are provided in an appendix to the 2012 document. These values are characterized as being "of limited use to risk assessors." The *screening* chronic p-RfD of

[10] An RfD of 0.00001 mg/kg-day had been proposed.

0.00001 mg/kg-day for soluble thallium is used by EPA to calculate RSLs. The earlier, withdrawn RfD (adjusted for soluble thallium) of 0.00007 mg/kg-day[11] will be used to assess risks associated with exposure to thallium in the baseline HHRA.

5.6.3 Carcinogenic PAHs

Benzo(a)pyrene, benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene belong to the PAH class of compounds. PAHs are ubiquitous in the environment, coming from sources such as coal, crude oil, gasoline, and the combustion of wood, garbage, and tobacco. Meats and other foods cooked at high temperatures are prominent sources of PAH exposures.

Toxicity values for some carcinogenic PAHs have not been developed. Instead, a relative potency approach is used to quantify carcinogenic potential. Relative potency factors (RPFs) are applied when chemicals are members of the same family and exhibit similar toxicological properties, but differ in their degree of toxicity. In 2010, EPA released a public review draft of its approach for use of RPF to assess PAH mixtures and is in the process of revising this approach following receipt of comments from a Science Advisory Board (USEPA 2010). Because EPA has not released an updated approach, an earlier approach will be used to assess toxicity for the carcinogenic PAH COPCs (USEPA 1993). Benzo(a)pyrene are assigned an RPF of 1 and the other PAH compounds are assigned RPFs relative to the toxicity of benzo(a)pyrene. The RPFs for PAH compounds that will be used in the HHRA are displayed in Table 11. Toxicity and exposure will be analyzed separately by compound, but will be presented as the sum of risk for all PAH compounds as "benzo(a)pyrene equivalents."

Table 11: Relative potency factors for PAHs

Compound	RPF
Benzo(a)pyrene	1.0
Benz(a)anthracene	0.1
Benzo(b)fluoranthene	0.1
Benzo(k)fluoranthene	0.01
Chrysene	0.001
Dibenz(a,h)anthracene	1.0
Indeno(1,2,3-c,d)pyrene	0.1

Source: EPA (1993); RPF = relative potency factor

5.6.1 TPH

TPH are a mixture of aliphatic (i.e., straight chain, branched chain, and cyclic alkanes and alkenes) and aromatic (i.e., based on benzene ring structure) petroleum hydrocarbon compounds of varying composition depending on their origin and use, and, weathering and age. Nonhydrocarbon compounds, sulfur-, nitrogen-, and oxygen-containing and organometallic

[11] This reference dose is derived from EPA's previous references doses for thallium sulfates, thallium chloride, and thallium acetate. To account for the mass of the compounds, we modified the reference doses by dividing the thallium atomic weight by the respective compounds' molecular weight and then calculated a mean of all the adjusted values.

compounds and inorganic salts also are present in TPH mixtures. TPH constituents are separated according to their boiling point, which roughly correlates with the number of carbons but also is related to their structure (TPHWG 1998). The separation of TPH constituents based on boiling point and number of carbons and grouping of constituents into like fractions is referred to as a "fractional approach" to TPH evaluation.

TPH mixtures enter the environment as diverse mixtures and over time, their composition may change as a result of evaporation, leaching, chemical oxidation, and microbial degradation. Toxicological evaluation of these variable mixtures is challenging and at this time, only data for gasoline, jet fuel, and mineral oil mixtures are available (TPHCWG 1997) and evaluation of these parent compound mixtures does not reflect weathered releases such as those found in OU-3 soil.

Using available data for mixtures and surrogate compounds, EPA established toxicity values for aliphatic and aromatic fractions (USEPA 2009c). The aliphatic and aromatic groups are broken down into "low," "medium," and "high" carbon range fractions. The PPRTV toxicity values are described for the three TPH mixtures evaluated in OU-3 soil:

- Gasoline range TPH (TPH-G) are represented by the C4 to C12 boiling range and often include oxygenates or alcohols to enhance their usage. Major components of TPH-G are benzene, toluene, ethylbenzene, and xylenes. Mineral spirits used as solvents also are included in this carbon fraction range. In the HHRA, toxicity will be assessed for the aliphatic fraction using the provisional oral reference dose and inhalation unit risk for n-hexane (USEPA 2009c). The toxicity of the aromatic fraction will be evaluated by the individual major components, benzene, toluene, ethylbenzene, and xylenes, rather than as a mixture (USEPA 2009c).

- Diesel range TPH (TPH-D) are represented by the C13 to C22 boiling range and are similar in composition to crude oil. TPH-D contain a relatively high fraction of aromatic compounds. This mixture range also includes furnace oil, jet fuels, and kerosene. Additives for diesel fuel may include anti-corrosives and oxygenates. In the HHRA, the aliphatic fraction will be assessed using available toxicity values for medium range mixtures (USEPA 2009c). The aromatic fraction will be assessed using toxicity values representing a mixture of alkylbenzenes (USEPA 2009c). Prior to evaluation, the concentration of the aromatic fraction will be reduced by the concentrations of naphthalene, 2-methylnaphthalene, 1-methylnaphthalene, and the trimethylbenzene isomers when analytical data for these constituents are available (USEPA 2009c).

- Motor oil range TPH (TPH-M) are represented by the C23 to C40 boiling range, which are heavier than both TPH-G and TPH-D, and include lubricating oils. The composition varies depending on the application of the oil but all mixtures include aromatic hydrocarbons and non-hydrocarbons. Some motor oil mixtures contain thickening agents and soaps. In the HHRA, the aliphatic fraction will be assessed using toxicity values for white mineral oils (USEPA 2009c). For the noncancer assessment of the aromatic fraction, fluoranthene will be used as a surrogate in the HHRA (USEPA 2009c). The cancer assessment of the aromatic fraction will be replaced by evaluation of the seven individual carcinogenic PAHs using the RPF approach described in Section 5.6.3: benzo(a)pyrene, benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene (USEPA 2009c).

Table 12: Toxicity values for non-radionuclide COPCs

Analyte Class	COPC	Chronic Oral RfD	RfC	Oral Slope Factor (SF)	Inhalation Unit Risk Factor (IUR)	Target Organs/Health Effects	Combined Uncertainty/ Modifying Factors	Weight of Evidence Cancer Guideline	Source[a] (date of last update)	Oral to Dermal Adjustment Factor (ABS_{GI})[b]	Adjusted Dermal RfD (RfD_{ABS})	Adjusted Dermal Cancer Slope Factor (SF_{ABS})	Dermal Absorption from Soil (ABS_d)[b]
		mg/kg$_{BW}$-d	mg/m^3	(mg/kg$_{BW}$-d)$^{-1}$	(µg/m^3)$^{-1}$								
Metals	Aluminum	1	0.005	--	--	(Oral and Inhalation) CNS/ Neurobehavioral effects	Oral:100 Inhalation: 300	ID	USEPA PPRTV 2006	1	1	--	0
	Antimony	0.0004	--	--	--	Hematologic/ Longevity, blood glucose, cholesterol	1000	--	USEPA IRIS 1987	0.15	0.00006	--	0
	Arsenic[c]	0.0003	0.000015	1.5	0.00015	Noncancer: Cardiovascular, Dermal/ Hyperpigmentation, keratosis, possible vascular complications Cancer: (Oral) Bladder, lung, liver, skin (Inhalation) Lung cancer	Oral: 3	A	Oral: USEPA IRIS 1991 Inhalation: CalEPA (RfC) TCEQ 2012 (IUR)	1	0.0003	1.5	0.005
	Cobalt	0.0003	0.000006	--	0.009	Noncancer: (Oral) Thyroid/ Decreased iodine uptake (Inhalation) Respiratory/ irritation and decreased lung function Cancer: Lung cancer	Oral: 3000 Inhalation: 300	"Likely to be carcinogenic to humans "	USEPA PPRTV 2008	1	0.0003	--	0
	Copper	0.04	--	--	--	Liver, gastrointestinal/ Hepatotoxicity, gastrointestinal effects	none listed	D	HEAST 1997	1	0.04	--	0
	Iron	0.7	--	--	--	Gastrointestinal effects	1.5	ID	USEPA PPRTV 2006	1	0.7	--	0
	Manganese[d]	0.024	0.00005	--	--	(Oral) CNS/ Varied CNS effects (Inhalation) Nervous/ Impairment of neurobehavioural function	Oral: UF-1 MF-3 Inhalation: 1000	D	USEPA IRIS 1995	0.04	0.00096	--	0

Table 12: Toxicity values for non-radionuclide COPCs

Analyte Class	COPC	Chronic Oral RfD	RfC	Oral Slope Factor (SF)	Inhalation Unit Risk Factor (IUR)	Target Organs/Health Effects	Combined Uncertainty/ Modifying Factors	Weight of Evidence Cancer Guideline	Source[a] (date of last update)	Oral to Dermal Adjustment Factor (ABS_{GI})[b]	Adjusted Dermal RfD (RfD_{ABS})	Adjusted Dermal Cancer Slope Factor (SF_{ABS})	Dermal Absorption from Soil (ABS_d)[b]
		mg/kg_{BW}-d	mg/m^3	$(mg/kg_{BW}-d)^{-1}$	$(\mu g/m^3)^{-1}$								
	Mercury, inorganic[e]	0.0003	0.0003	--	--	Immune, Urinary/ Autoimmune glomerulonephritis	1000	C	USEPA IRIS 1995	1	0.0003	--	0
	Selenium	0.005	0.02	--	--	CNS, Hematological, Dermal/ Selenosis (skin discoloration, nail deformation)	3	D	Oral: USEPA IRIS 1991 Inhalation: CalEPA 2001	1	0.005	--	0
	Thallium[f]	0.00007	--	--	--	Other/ Alopecia (hair loss)	3000	ID	USEPA PPRTV 2012	1	0.00007	--	0
	Vanadium[g]	0.005	0.0001	--	--	Urinary/ Kidney histopathology	100	--	Oral: USEPA IRIS 1996 Inhalation: ATSDR 2012	0.026	0.00013	--	0
	Uranium	0.003	0.00004	--	--	Urinary, other/ Nephrotoxicity and body weight loss	1000	--	Oral: USEPA IRIS 1989 Inhalation: ATSDR 2013	1	0.003		0
	Zinc	0.3	--	--	--	Immune, Hematologic/ Decreases in erythrocyte copper, zinc-superoxide dismutase activity	3	ID	USEPA IRIS 2005	1	0.3	--	0
Pesticides	4,4'-DDT	0.0005	--	0.34	0.000097	Noncancer: Hepatic/ Liver lesions Cancer: (Oral and Inhalation) Liver tumors	100	B2	USEPA IRIS 1988	1	0.0005	0.34	0.03

Table 12: Toxicity values for non-radionuclide COPCs

Analyte Class	COPC	Chronic Oral RfD	RfC	Oral Slope Factor (SF)	Inhalation Unit Risk Factor (IUR)	Target Organs/Health Effects	Combined Uncertainty/ Modifying Factors	Weight of Evidence Cancer Guideline	Source[a] (date of last update)	Oral to Dermal Adjustment Factor (ABS_{GI})[b]	Adjusted Dermal RfD (RfD_{ABS})	Adjusted Dermal Cancer Slope Factor (SF_{ABS})	Dermal Absorption from Soil (ABS_d)[b]
		mg/kg_{BW}-d	mg/m^3	$(mg/kg_{BW}-d)^{-1}$	$(\mu g/m^3)^{-1}$								
TPH	**Diesel Range Organics (C13–C22)**												
	Aliphatic Medium[h]	0.01	0.1	--	--	(Oral) Urinary, hepatic/ Increased liver, kidney weight (Inhalation) Respiratory/ Nasal goblet cell hypertrophy	Oral: 10,0000 Inhalation: 100	"Suggestive evidence for carcinogenic potential"	Oral: USEPA Appendix PPRTV Screen 2009 Inhalation: USEPA PPRTV 2009	1	0.01	--	0
	Aromatic Medium[i]	0.004	0.003	--	--	(Oral) Respiratory/ Pulmonary alveolar proteinosis (Inhalation) Nervous, Respiratory/ Hyperplasia and metaplasia in respiratory and olfactory epithelium, respectively	Oral: 1000 Inhalation: 3000	ID	USEPA PPRTV 2009	1	0.004	--	0.1
	Gasoline Range Organics (C4-C12)												
	Aliphatic Low[j]	--	0.6	--	--	Respiratory/ Nasal and laryngeal irritation	30	"Suggestive evidence for carcinogenic potential"	USEPA PPRTV 2009	--	--	--	0
	Aromatic Low[k]	--[k]	--[j]	--[k]	--[k]	--[k]	--[k]	--[k]	--[k]	--[k]	--[k]	--[k]	--[k]
	Motor Oil Range Organics (C23-C40)												
	Aliphatic High[l]	3	--	--	--	Gastrointestinal/ Laxative effects	300	ID	USEPA PPRTV 2009	1	3	--	0.1
	Aromatic High[m]	0.04	--	--[m]	--	Noncancer: Hepatic, urinary/ Nephropathy, increased liver weight, hematological alterations Cancer: Gastrointestinal tumors	3000	B2		1	0.04	7.3	0.13

Table 12: Toxicity values for non-radionuclide COPCs

Analyte Class	COPC	Chronic Oral RfD	RfC	Oral Slope Factor (SF)	Inhalation Unit Risk Factor (IUR)	Target Organs/Health Effects	Combined Uncertainty/ Modifying Factors	Weight of Evidence Cancer Guideline	Source[a] (date of last update)	Oral to Dermal Adjustment Factor (ABS_{GI})[b]	Adjusted Dermal RfD (RfD_{ABS})	Adjusted Dermal Cancer Slope Factor (SF_{ABS})	Dermal Absorption from Soil (ABS_d)[b]
		mg/kg_{BW}-d	mg/m^3	$(mg/kg_{BW}$-$d)^{-1}$	$(\mu g/m^3)^{-1}$								
SVOCs	Naphthalene	0.02	0.003	--	--	(Oral) Other/ Decreased body weight (Inhalation) Nervous, Respiratory/ Hyperplasia and metaplasia in respiratory and olfactory epithelium, respectively	Oral: 3000 Inhalation: 3000	C	USEPA IRIS 1998	1	0.02	--	0.1
VOCs	Trimethylbenzenes	0.01	0.06	--	--	(Oral and Inhalation) Nervous/ Decreased pain sensitivity	Oral: 300 Inhalation: 300	ID	USEPA IRIS 2016	1	0.01		0

Notes:

-- Not assessed by IRIS or applicable source
a Date is date of last update (IRIS, CalEPA, ATSDR) or file date (PPRTV)
b From RAGS, Part E (USEPA 2004b)and Lowney et al. (2007)
c TCEQ inhalation unit risk factor used (Erraguntla et al. 2012).
d The manganese RfD for non-food items is calculated by subtracting the dietary contributions from the 0.14 mg/kg-day dietary RfD and applying a modifying factor of 3, resulting in an RfD for non-food items of 0.024 mg/kg-day.
e Toxicity data from IRIS assessment of mercuric chloride
f The 0.00007 mg/kg-day RfD is derived from USEPA's previous RfDs for thallium sulfates, thallium chloride, and thallium acetate. To account for the mass of the compounds, the previous RfDs were modified by dividing the thallium atomic weight by the respective compounds' molecular weight, and calculating a mean of all the adjusted values.
g Derived from reference dose from vanadium pentoxide by factoring out atomic weight of oxygen. Vanadium pentoxide (V_2O_5) has a molecular weight of 181.88, with the two atoms of vanadium contributing 56% of the molecular weight. Fifty-six percent of vanadium pentoxide's 0.009 mg/kg-day reference dose produces the vanadium RfD of 0.005 mg/kg-day.
h Midrange aliphatic hydrocarbon streams is the surrogate compound for this hydrocarbon class
i For noncancer effects, 2-Methylnaphthalene is the representative compound for oral exposure, and naphthalene is the representative compound for inhalation exposure for this hydrocarbon class. For cancer effects, high flash aromatic naphtha is the representative compound.
j n-hexane is the representative compound for this hydrocarbon class
k USEPA 2009c (PPRTV guidance) recommends evaluating the aromatic low fraction group as individual, indicator compounds: benzene, toluene, ethylbenzene, xylenes
l White mineral oil is the representative compound for this hydrocarbon class
m Fluoranthene is the representative compound for noncancer effects, cancer risks for this fraction will be assessed using the PAH RPF approach

Abbreviations:
TPH= Total petroleum hydrocarbons; SVOCs= Semi-volatile organic carbons; VOCs= Volatile organic carbons; RfD= reference dose; RfC= reference concentration for inhalation exposure; mg/kg-day= milligram per kilogram per day; mg/m3= milligram per cubic meter of air; µg/m3 = microgram per cubic meter of air; IRIS= Integrated Risk Information System (USEPA 2016d); PPRTV= Provisional Peer Reviewed Toxicity Values for Superfund (USEPA 2016e); HEAST= Health Effects Summary Tables (USEPA 1997); TCEQ= Texas Commission on Environmental Quality; CalEPA= California Environmental Protection Agency; (date) ATSDR= Agency for Toxic Substances and Disease Registry; UF= uncertainty factors; MF= modifying factors

Table 12: Toxicity values for non-radionuclide COPCs

Analyte Class	COPC	Chronic Oral RfD	RfC	Oral Slope Factor (SF)	Inhalation Unit Risk Factor (IUR)	Target Organs/Health Effects	Combined Uncertainty/ Modifying Factors	Weight of Evidence Cancer Guideline	Source[a] (date of last update)	Oral to Dermal Adjustment Factor (ABS_{GI})[b]	Adjusted Dermal RfD (RfD_{ABS})	Adjusted Dermal Cancer Slope Factor (SF_{ABS})	Dermal Absorption from Soil (ABS_d)[b]
		mg/kg_{BW}-d	mg/m^3	$(mg/kg_{BW}$-$d)^{-1}$	$(\mu g/m^3)^{-1}$								
Weight of Evidence/ EPA Cancer Guideline (USEPA 2005a)													
A	Carcinogenic to Humans; adequate human data demonstrates causality												
B1	Probably Carcinogenic to Humans; limited evidence in humans, but sufficient evidence in animals to demonstrate causality												
B2	Probably Carcinogenic to Humans; sufficient evidence in animals to demonstrate causality, but little or no human data available												
C	Possibly Carcinogenic to Humans; Limited animal evidence and little or no human data												
D	Not Classifiable as a Human Carcinogen; Inadequate data to either support or refute human carcinogenicity												
E	Evidence of Non-Carcinogenicity												
"Likely to be carcinogenic to humans"	Weight of evidence is adequate to demonstrate carcinogenic potential to humans, but association is not definitively causal												
"Suggestive evidence of carcinogenic potential"	Weight of evidence is suggestive of carcinogenicity, but data is not sufficient for a stronger conclusion												

Table 13: Toxicity values for COPCs specific to vapor intrusion pathway

Analyte Class	COPC	RfC mg/m³	Inhalation Unit Risk Factor (IUR) (µg/m³)⁻¹	Target Organs/Health Effects	Combined Uncertainty/Modifying Factors	Weight of Evidence Cancer Guideline	Source[a] (date of last update)
Pesticides	alpha-BHC	--	1.8E-03	Tumor-producing	--	B2	USEPA IRIS 1993
SVOCs	Naphthalene	0.003	3.4E-05	Nervous, Respiratory/ Hyperplasia and metaplasia in respiratory and olfactory epithelium, respectively	3000	C	USEPA IRIS 1998
VOCs	Trimethylbenzenes	0.06	--	Nervous/ Decreased pain sensitivity	300	ID	USEPA IRIS 2016
	Benzene	0.03	7.8E-06	Noncancer: Immune/ Decreased lymphocyte count Cancer: Hematologic tumors, leukemia	300	A	USEPA IRIS 2003
	Ethylbenzene	1	--	Developmental/ Developmental toxicity	1000	D	USEPA IRIS 1991
	Isopropylbenzene (Cumene)	0.4	--	Endocrine, Urinary/ Increased kidney weight, increased adrenal weight	1000	D	USEPA IRIS 1997
	Styrene	1	--	Red blood cell and liver effects	30	ID	USEPA IRIS 1987
	Tetrachloroethene (PCE)	0.04	2.6E-07	Noncancer: Nervous/ Neurotoxicity (reaction time, cognitive effects, color vision) Cancer: Hepatic tumors	1000	"Likely to be carcinogenic to humans"	USEPA IRIS 2012
	Toluene	5	--	Nervous/Neurological effects in occupationally-exposed workers	10	ID	USEPA IRIS 2005
	Trichlorofluoromethane (Freon 11)	7.0E-01	--	Increased mortality	10,000	ID	HEAST 1997
	Xylenes, total	0.1	--	Nervous/ Impaired motor coordination	300	ID	USEPA IRIS 2003

Table 13: Toxicity values for COPCs specific to vapor intrusion pathway

Analyte Class	COPC	RfC mg/m³	Inhalation Unit Risk Factor (IUR) (µg/m³)⁻¹	Target Organs/Health Effects	Combined Uncertainty/Modifying Factors	Weight of Evidence Cancer Guideline	Source[a] (date of last update)

Notes

a Date is date of last update (IRIS)

Abbreviations:

SVOCs= Semi-volatile organic carbons; VOCs= Volatile organic carbons; RfC= reference concentration for inhalation exposure; mg/m³= milligram per cubic meter of air; µg/m³ = microgram per cubic meter of air; IRIS= Integrated Risk Information System (USEPA 2016d); HEAST= Health Effects Summary Tables (USEPA 1997)

Weight of Evidence/ EPA Cancer Guideline

A	Carcinogenic to Humans; adequate human data demonstrates causality
B1	Probably Carcinogenic to Humans; limited evidence in humans, but sufficient evidence in animals to demonstrate causality
B2	Probably Carcinogenic to Humans; sufficient evidence in animals to demonstrate causality, but little or no human data available
C	Possibly Carcinogenic to Humans; Limited animal evidence and little or no human data
D	Not Classifiable as a Human Carcinogen; Inadequate data to either support or refute human carcinogenicity
E	Evidence of Non-Carcinogenicity
ID	Data Are Inadequate for An Assessment of Human Carcinogenic Potential
"Likely to be carcinogenic to humans"	Weight of evidence is adequate to demonstrate carcinogenic potential to humans, but association is not definitively causal
"Suggestive evidence of carcinogenic potential"	Weight of evidence is suggestive of carcinogenicity, but data is not sufficient for a stronger conclusion

Table 14: Toxicity values for isolated occurrence COPCs

Analyte Class	COPC	Chronic Oral RfD	RfC	Oral Slope Factor (SF)	Inhalation Unit Risk Factor (IUR)	Target Organs/Health Effects	Combined Uncertainty/ Modifying Factors	Weight of Evidence Cancer Guideline	Source[a] (date of last update)	Oral to Dermal Adjustment Factor (ABS_{GI})[b]	Adjusted Dermal RfD (RfD_{ABS})	Adjusted Dermal Cancer Slope Factor (SF_{ABS})	Dermal Absorption from Soil (ABS_d)[b]
		mg/kg$_{BW}$-d	mg/m^3	(mg/kg$_{BW}$-d)$^{-1}$	(µg/m^3)$^{-1}$								
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	0.001	--	--	--	Urinary/ Increased kidney weight	3000	--	USEPA IRIS 1989	1	0.001	--	0
PCBs	Aroclor 1254	0.00002	--	2	0.0001	Noncancer: Immune, dermal, ocular/ Decreased antibody response, distorted growth of finger and toenails, ocular exudate Cancer: Liver tumors	300	B2	USEPA IRIS 1996	1	0.00002	2	0.14
	Aroclor 1016	0.00007	--	2	0.0001	Noncancer: Developmental/ reduced birth weight Cancer: Liver tumors	100	B2	USEPA IRIS 1996	1	0.00007	2	0.14
	Aroclor 1260	--	--	2	0.0001	Cancer: Liver tumors	--	B2	USEPA IRIS 1996	1	--	2	0.14
Pesticides	Dieldrin	0.00005	--	16	0.0046	Hepatic/ Liver lesions	100	B2	USEPA IRIS 1988	1	0.00005	16	0
TPH	**Gasoline Range Organics (C4-C12)**												
	Aliphatic Low[c]	--	0.6	--	--	Respiratory/ Nasal and laryngeal irritation	30	"Suggestive evidence for carcinogenic potential"	USEPA PPRTV 2009	--	--	--	0
TPH	Aromatic Low[d]	--[d]	--[d]	--[d]	--[d]	--[d]	--[d]	--[d]	--[d]	--[d]	--[d]	--[d]	--[d]

Table 14: Toxicity values for isolated occurrence COPCs

Analyte Class	COPC	Chronic Oral RfD	RfC	Oral Slope Factor (SF)	Inhalation Unit Risk Factor (IUR)	Target Organs/Health Effects	Combined Uncertainty/ Modifying Factors	Weight of Evidence Cancer Guideline	Source[a] (date of last update)	Oral to Dermal Adjustment Factor (ABS_{GI})[b]	Adjusted Dermal RfD (RfD_{ABS})	Adjusted Dermal Cancer Slope Factor (SF_{ABS})	Dermal Absorption from Soil (ABS_d)[b]
		mg/kg$_{BW}$-d	mg/m^3	(mg/kg$_{BW}$-d)$^{-1}$	(µg/m^3)$^{-1}$								
SVOCs	Naphthalene	0.02	0.003	--	--	(Oral) Other/ Decreased body weight (Inhalation) Nervous, Respiratory/ Hyperplasia and metaplasia in respiratory and olfactory epithelium, respectively	Oral: 3000 Inhalation: 3000	C	USEPA IRIS 1998	1	0.02	--	0.1
	2-Methylnaphthalene	0.004	--	--	--	Respiratory/ Pulmonary alveolar proteinosis	1000	ID	USEPA IRIS 2003	1	0.004	--	0.1
	Benz[a]anthracene	--	--	0.73	--	Tumor-producing	--	B2	USEPA IRIS 2015	1	--	0.73	0.13
	Benzo[a]pyrene	--	--	7.3	--	Gastrointestinal tumors	--	B2	USEPA IRIS 1994	1	--	7.3	0.13
	Benzo[b] fluoranthene	--	--	0.73	--	Tumor-producing	--	B2	USEPA IRIS 2015	1	--	0.73	0.13
	Dibenz(a,h)anthracene	--	--	7.3	--	Tumor-producing	--	B2	USEPA IRIS 2015	1	--	7.3	0.13
	Indeno(1,2,3-cd)pyrene	--	--	0.73	--	Tumor-producing	--	B2	USEPA IRIS 2015	1	--	0.73	0.13
	N-Nitroso-di-n-propylamine	--	--	7	--	Liver tumors	--	B2	USEPA IRIS 1987	1	--	7	0.1
VOCs	1,2-Dibromo-3-chloropropane (DBCP):	--	0.0002	--	--	Reproductive/ Testicular Effects	1000	--	USEPA IRIS 1991	--	--	--	0
	Ethylbenzene	0.1	1	--	--	(Oral) Hepatic, urinary/ liver and kidney toxicity (Inhalation)Devel	Oral: 1000 Inhalation: 300	D	USEPA IRIS 1991	1	0.1	--	0

Table 14: Toxicity values for isolated occurrence COPCs

Analyte Class	COPC	Chronic Oral RfD	RfC	Oral Slope Factor (SF)	Inhalation Unit Risk Factor (IUR)	Target Organs/Health Effects	Combined Uncertainty/ Modifying Factors	Weight of Evidence Cancer Guideline	Source[a] (date of last update)	Oral to Dermal Adjustment Factor (ABS_{GI})[b]	Adjusted Dermal RfD (RfD_{ABS})	Adjusted Dermal Cancer Slope Factor (SF_{ABS})	Dermal Absorption from Soil (ABS_d)[b]
		mg/kg$_{BW}$-d	mg/m^3	(mg/kg$_{BW}$-d)$^{-1}$	(µg/m^3)$^{-1}$								
						opmental/Developmental toxicity							
	Xylenes, total	0.2	0.1	--	--	(Oral) Other/ Decreased body weight, increased mortality (Inhalation) Nervous/ Impaired motor coordination	Oral: 1000 Inhalation: 300	ID	USEPA IRIS 2003	1	0.2	--	0
	Trimethylbenzenes	0.01	0.06	--	--	(Oral and Inhalation) Nervous/ Decreased pain sensitivity	Oral: 300 Inhalation: 300	ID	USEPA IRIS 2016	1	0.01		0

Notes:

-- Not assessed by IRIS or applicable source

a Date is date of last update (IRIS, CalEPA, ATSDR) or file date (PPRTV)

b From RAGS, Part E (USEPA 2004b)

c Commercial hexane is the representative compound for this hydrocarbon class

d USEPA 2009c (PPRTV guidance) recommends evaluating the aromatic low fraction group as individual, indicator compounds: benzene, toluene, ethylbenzene, xylenes

Abbreviations:

TPH= Total petroleum hydrocarbons; SVOCs= Semi-volatile organic carbons; VOCs= Volatile organic carbons; RfD= reference dose; RfC= reference concentration for inhalation exposure; mg/kg-day= milligram per kilogram per day; mg/m3= milligram per cubic meter of air; µg/m3 = microgram per cubic meter of air; IRIS= Integrated Risk Information System (USEPA 2016d); PPRTV= Provisional Peer Reviewed Toxicity Values for Superfund (USEPA 2016e); UF= uncertainty factors

Weight of Evidence/ EPA Cancer Guideline (USEPA 2005a)

A Carcinogenic to Humans; adequate human data demonstrates causality

B1 Probably Carcinogenic to Humans; limited evidence in humans, but sufficient evidence in animals to demonstrate causality

B2 Probably Carcinogenic to Humans; sufficient evidence in animals to demonstrate causality, but little or no human data available

C Possibly Carcinogenic to Humans; Limited animal evidence and little or no human data

Table 14: Toxicity values for isolated occurrence COPCs

Analyte Class	COPC	Chronic Oral RfD	RfC	Oral Slope Factor (SF)	Inhalation Unit Risk Factor (IUR)	Target Organs/Health Effects	Combined Uncertainty/ Modifying Factors	Weight of Evidence Cancer Guideline	Source[a] (date of last update)	Oral to Dermal Adjustment Factor (ABS_{GI})[b]	Adjusted Dermal RfD (RfD_{ABS})	Adjusted Dermal Cancer Slope Factor (SF_{ABS})	Dermal Absorption from Soil (ABS_d)[b]
		mg/kg_{BW}-d	mg/m^3	$(mg/kg_{BW}-d)^{-1}$	$(\mu g/m^3)^{-1}$								
D	Not Classifiable as a Human Carcinogen; Inadequate data to either support or refute human carcinogenicity												
E	Evidence of Non-Carcinogenicity												
"Likely to be carcinogenic to humans"	Weight of evidence is adequate to demonstrate carcinogenic potential to humans, but association is not definitively causal												
"Suggestive evidence of carcinogenic potential"	Weight of evidence is suggestive of carcinogenicity, but data is not sufficient for a stronger conclusion												

Table 15: Toxicity values for radionuclides

COPC	Soil Ingestion Slope Factor	Inhalation Slope Factor (Lungtype)		External Exposure Slope Factor
	risk/pCi	risk/pCi	risk/pCi	risk/yr per pCi/g
Radium-226 (+D)	6.77E-10	2.8E82E-08		8.37E-06
Radium-228 (+D)	1.98E-09	4.374E-08		4.04E-06
Thorium-232	1.84E-10	4.33E-08		3.58E-10
Uranium-234	1.48E-10	2.78E-08		2.53E-10
Uranium-235 (+D)	1.54E-10	2.50E-08		5.76E-07
Uranium-238 (+D)	1.97E-10	2.37E-08		1.19E-07

Notes:
"(+D)" indicates the slope factors include daughters with half lives less than 6 months.

6. RISK CHARACTERIZATION

To characterize risks, quantitative estimates of exposure and toxicity are combined to yield numerical estimates of potential health risk for noncarcinogenic and carcinogenic COPCs. This phase of a risk assessment also involves interpreting and qualifying the derived risk estimates and the uncertainty associated with them.

6.1 Noncancer Risks

Health risks other than cancer are characterized as the increased likelihood that an individual will suffer adverse health effects as a result of chemical exposure. To evaluate noncancer risks, the ratio of the average daily intake to the RfD or RfC is calculated. This ratio is referred to as the hazard quotient (HQ). If the calculated value of the hazard quotient is less than or equal to 1.0, no adverse health effects are expected. If the calculated value of the hazard quotient is greater than 1.0, then further risk evaluation is needed. The hazard quotient will be calculated for the ingestion/dermal and inhalation pathways using the following equations:

$$HQ = \frac{Intake}{RfD}$$

$$HQ = \frac{EC}{RfC}$$

Where,

HQ	=	Hazard quotient associated with exposure to the COPC via the specified exposure route (dimensionless)
Intake	=	Estimated average daily intake of the COPC via the specified exposure route (mg/kg-day)
EC	=	Exposure concentration for the COPC (mg/m^3)
RfD	=	Reference dose for the COPC (mg/kg-day)
RfC	=	Reference concentration for the COPC (mg/m^3)

To evaluate the effect of exposure to multiple chemicals that act on the body in a similar manner, the hazard quotients for each exposure pathway for individual COPCs are typically summed to determine a noncancer hazard index using the following formula:

$$HI = HQ_1 + HQ_2 + \ldots + HQ_i$$

Where,

HI	=	hazard index
HQ_i	=	hazard quotient for COPC *i*

Hazard indices (HIs) for multiple COPCs are generally not summed if the reference doses for the COPCs are based on effects on different target organs. This is because the noncancer health risks associated with COPCs that affect different target organs are unlikely to be additive.

6.2 Cancer Risks

The cancer risk estimates derived using standard risk assessment methods are characterized as the incremental probability that an individual will develop cancer during his or her lifetime due to exposure to site-related COPCs resulting from the specific exposure scenarios that are going to be evaluated. The term "incremental" reflects the fact that the calculated risk associated with site-related exposure is in addition to the background risk of cancer experienced by all individuals. For the resident receptors, child and adult exposures will be combined to estimate lifetime cancer risk. The risk estimates will be compared with the EPA target risk range of 1 in 1 million (1×10^{-6}) to 1 in 10,000 (1×10^{-4}), within which EPA generally strives to manage risks as part of a Superfund cleanup (USEPA 1991).

Excess incremental lifetime cancer risks for ingestion/dermal and inhalation exposures, respectively, will be calculated using the following equations:

$$\text{Cancer Risk} = \text{Intake}\left(\frac{\text{mg}}{\text{kg-day}}\right) \times \text{CSF}\left(\frac{\text{mg}}{\text{kg-day}}\right)^{-1}$$

$$\text{Cancer Risk} = \text{EC}\left(\frac{\text{mg}}{\square^3}\right) \times \text{URF}\left(\frac{\text{mg}}{\square^3}\right)^{-1}$$

Because cancer risks are assumed to be additive, risks associated with simultaneous exposure to more than one carcinogen in a given medium are typically combined to estimate the total cancer risk associated with each exposure pathway (USEPA 1989). Where exposures may occur via multiple exposure routes, total cancer risks for each exposure pathway, including radiological risks, may be summed for reasonable combinations of exposure pathways to determine the total cancer risk for the population of concern.

6.3 Radiological Risks

Cancer risks resulting from intakes of radionuclides will be calculated by multiplying the estimated activity intake by the CSF:

$$\text{Cancer Risk} = \text{Intake (pCi)} \times \text{CSF(pCi)}^{-1}$$

For external exposure, the integrated exposure concentration is multiplied by the CSF:

$$\text{Cancer Risk} = \text{Integrated Exposure}\left(\frac{\text{pCi-yr}}{\text{g}}\right) \times \text{CSF}\left(\frac{\text{pCi-yr}}{\text{g}}\right)^{-1}$$

Cancer risks for radionuclide exposures will be summed to obtain an estimate of total lifetime cancer risk.

7. UNCERTAINTY EVALUATION

An evaluation of uncertainties will be provided in the baseline HHRA report. In addition, a sensitivity analysis may be warranted to quantify the magnitude of uncertainty associated with specific assumptions applied in the HHRA.

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APPENDIX A
DATA AND COPC SCREENING FOR DIRECT CONTACT AND RADIATION PATHWAYS

Table A-1: Frequency of constituent detection by subarea for soil 0 – 15 ft bgs

Analyte	Subarea											
	1	2	3	4	5	6	7	8	9	10	11	12
Total number of analytes	**196**	**194**	**194**	**193**	**193**	**202**	**189**	**194**	**194**	**203**	**203**	**193**
Herbicides												
2-(2-Methyl-4-chlorophenoxy)propionic acid	○	○	--	--	--	○	--	□□	--	--	--	--
2,4-DB	○	--	--	--	--	--	--	--	--	--	--	--
2-Methyl-4-chlorophenoxyacetic acid	--	--	--	--	--	--	--	□	--	--	--	--
Dalapon	--	--	--	--	--	--	--	--	--	--	--	--
Dicamba	--	--	--	--	--	--	--	○	--	--	--	--
Dichlorophenoxyacetic acid (2,4-D)	--	--	--	--	--	--	--	--	○	--	--	--
Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorophenoxyacetic acid (2,4,5-T)	--	--	--	--	--	--	--	□	--	--	--	--
Metals												
Aluminum	□	□	□	□	□	□	□	□	□	□	□	□
Antimony	□	□	□	□	□	□	□	□	□	□	□	□
Arsenic	□	□	□	□	□	□	□	□	□	□	□	□
Barium	□	□	□	□	□	□	□	□	□	□	□	□
Beryllium	□	□	□	□	□	□	□	□	□	□	□	□
Boron	□	□	□	□	□	□	□	□	□	□	□	□
Cadmium	□	□	□	□	□	□	□	□	□	□	□	□
Calcium	□	□	□	□	□	□	□	□	□	□	□	□
Chromium	□	□	□	□	□	□	□	□	□	□	□	□
Cobalt	□	□	□	□	□	□	□	□	□	□	□	□
Copper	□	□	□	□	□	□	□	□	□	□	□	□
Iron	□	□	□	□	□	□	□	□	□	□	□	□
Lead	□	□	□	□	□	□	□	□	□	□	□	□
Magnesium	□	□	□	□	□	□	□	□	□	□	□	□
Manganese	□	□	□	□	□	□	□	□	□	□	□	□
Mercury	□	□	□	□	□	□	□	□	□	□	□	□
Molybdenum	□	□	□	□	□	□	□	□	□	□	□	□
Nickel	□	□	□	□	□	□	□	□	□	□	□	□
Potassium	□	□	□	□	□	□	□	□	□	□	□	□
Selenium	□	□	□	□	□	□	□	□	□	□	□	□
Silver	□	□	□	□	□	□	□	□	□	□	□	□
Sodium	□	□	□	□	□	□	□	□	□	□	□	□
Thallium	□	□	□	□	□	□	□	□	□	□	□	□
Vanadium	□	□	□	□	□	□	□	□	□	□	□	□
Zinc	□	□	□	□	□	□	□	□	□	□	□	□

Analyte	Subarea											
	1	2	3	4	5	6	7	8	9	10	11	12
Polychlorinated biphenyls (PCBs)												
Aroclor 1016	--	--	--	--	--	--	--	--	○	--	--	--
Aroclor 1221	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1232	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1242	--	--	--	--	○	--	--	--	--	--	--	--
Aroclor 1248	--	--	--	--	--	--	--	○	--	--	--	--
Aroclor 1254	--	--	--	□	□	○	--	□	--	--	--	--
Aroclor 1260	--	○	--	--	--	--	--	○	○	--	○	□
Aroclor 1268	--	--	--	--	--	--	--	--	--	--	--	--
Pesticides												
2,4,5-TP (Silvex)	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDD	□	□	--	□	○	--	□	○	□	--	□	--
4,4'-DDE	□	□	--	□	□	○	□	□	□	○	□	□
4,4'-DDT	□	□	□	□	□	□	□	□	□	□	□	□
Aldrin	○	○	--	--	--	--	□	--	□	--	○	--
alpha Endosulfan (Endosulfan I)	--	--	--	--	--	--	--	□	□	--	--	--
beta Endosulfan (Endosulfan II)	--	○	--	□	--	--	--	○	--	○	□	--
BHC, alpha	□	□	--	□	○	--	□	□	□	○	□	□
BHC, beta	○	□	--	□	--	○	--	-	□	○	□	--
BHC, delta	□	□	--	--	□	--	□	--	□	○	○	--
BHC, gamma (Lindane)	□	○	--	--	○	--	--	□	□	--	○	--
Chlordane (technical)	--	--	--	--	--	--		--	--	--	--	
Chlordane, alpha	--	○	--	--	--	--	--	□	--	--	○	--
Chlordane, gamma	--	--	--	--	--	--	--	--	○	--	--	--
Dieldrin	○	□	--	--	○	--	--	○	○	--	□	--
Dinoseb (DNBP)	--	--	--	--	--	--	--	--	--	--	--	--
Endosulfan sulfate	--	--	--	□	○	--	--	□	--	○	--	--
Endrin	□	□	□	□	--	--	--	○	○	--	○	--
Endrin aldehyde	--	○	--	□	--	--	--	□	--	--	--	--
Endrin ketone	□	○	□	--	--	--	--	□	--	--	--	--
Heptachlor	○	○	--	□	--	--	□	□	□	--	○	--
Heptachlor epoxide	○	□	--	□	□	--	--	○	□	○	□	--
Methoxychlor	□	□	□	□	○	○	--	□	--	○	○	□
Toxaphene	--	--	--	--	--	--	--	--	--	--	--	--
Radionuclides												
Radium-226	□	□	□	□	□	□	□	□	□	□	□	□
Radium-228	□	□	□	□	□	□	□	□	□	□	□	□

Analyte	Subarea											
	1	2	3	4	5	6	7	8	9	10	11	12
Thorium	□	□	□	□	□	□	□	□	□	□	□	□
Uranium	□	□	□	□	□	□	□	□	□	□	□	□
Semi-volatile organic Compounds												
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	○	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	--	--	--	--	--	--	--	--	--	--	○	--
2,4-Dinitrophenol	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	□	○	--	--	--	○	--	--	--	--	□	--
2-Methylphenol (o-cresol)	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	--	--	--	--	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	○	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--
4-Methylphenol (p-cresol)	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	○	--	□	○	○	□	--	--	○	○	○	--
Acenaphthylene	○	○	□	□	○	--	--	--	□	○	○	--
Anthracene	--	○	--	○	--	--	--	--	--	--	--	--
Benzo(a)anthracene	--	○	--	□	□	□	--	--	□	□	○	--
Benzo(a)pyrene	○	--	--	□	○	□	--	--	□	○	--	--
Benzo(b)fluoranthene	○	--	--	□	□	□	--	○	□	□	○	--
Benzo(g,h,i)perylene	○	--	--	□	□	□	--	--	□	○	□	--
Benzo(k)fluoranthene	--	--	--	□	○	□	--	--	○	○	○	--
Benzoic acid	--	--	--	□	○	--	--	□	○	□	○	--
Benzyl alcohol	--	--	--	--	--	--	--	--	--	--	--	--

Analyte	Subarea											
	1	2	3	4	5	6	7	8	9	10	11	12
Benzyl butyl phthalate	○	□	--	--	--	--	--	--	--	--	○	--
bis(2-Chloroethoxy)methane	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Chloroethyl)ether	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Chloroisopropyl)ether	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	□	□	□	□	□	□	--	□	□	□	□	□
Carbazole	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	□	○	--	□	□	□	--	□	□	□	□	--
Dibenz(a,h)anthracene	--	--	--	□	○	□	--	--	--	--	○	--
Dibenzofuran	--	--	--	--	--	○	--	--	--	--	--	--
Diethyl phthalate	--	□	--	--	--	--	□	○	□	--	--	□
Dimethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--
di-n-Butyl phthalate	--	□	--	--	--	○	□	□	○	--	○	--
di-n-octyl phthalate	--	--	--	--	--	--	--	--	--	--	--	○
Fluoranthene	□	○	--	□	□	□	--	□	□	□	□	--
Fluorene	○	○	--	○	--	□	--	○	□	○	□	--
Hexachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-c,d)pyrene	○	--	--	□	○	□	--	--	□	□	□	--
Isophorone	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene by 8270SIM	□	○	□	□	--	○	--	--	○	○	○	○
Nitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	--	--	--				--	--	--	--	--	--
N-Nitroso-di-n-propylamine	--	--	--	--	--	--	--	○	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	--	--	--	--	--	--	--	--	○	--	--	--
Phenanthrene	□	□	--	□	□	□	--	○	□	□	□	--
Phenol	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	□	□	--	□	□	□	--	○	□	□	□	--
Total Petroleum Hydrocarbons												
Diesel Range organics (C13-C22)	□	□	□	□	□	□	□	□	□	□	□	□
Gasoline Range organics (C4-C12)	□	□	--	□	--	□	□	--	□	□	□	□
Motor oil Range organics (C23-C40)	□	□	□	□	□	□	□	□	□	□	□	□
Volatile organic Compounds												
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	○	--

Analyte	Subarea											
	1	2	3	4	5	6	7	8	9	10	11	12
1,1,2,2-Tetrachloroethane	--	○	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)						--				--	--	
1,1,2-Trichloroethane	--	○	--	--	--	--	--	○	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	○	--
1,1-Dichloroethene	--	□	--	--	--	--	--	--	--	--	--	--
1,1-Dichloropropene	○	--	--	--	--	--	--	--	--	--	○	--
1,2,3-Trichlorobenzene	--	○	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	○	○	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	--	○	--	--	--	--	--	--	--	--	○	--
1,2,4-Trimethylbenzene	□	□	□	□	□	□	--	□	○	○	□	--
1,2-Dibromo-3-chloropropane (DBCP)	--	--	--	--	○	--	--	--	--	--	○	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	○	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	○	--
1,2-Dichloropropane	--	○	--	--	--	--	--	--	--	--	--	--
1,2-Dimethylbenzene (o-Xylene)	□	--	--	--	--	--		--	--	--	□	--
1,3,5-Trimethylbenzene (mesitylene)	□	□	--	□	□	--	--	--	--	○	□	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichloropropane	--	--	--	--	--	○	--	--	--	--	□	○
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)						--				□	--	
2-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	○	--
2-Hexanone						--				--	--	
4-Chlorotoluene	○	--	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene (p-Cymene)	□	○	--	--	○	--	--	○	--	○	○	--
4-Methyl-2-Pentanone (MIBK)						--				--	--	
Acetone						--				□	--	
Benzene	□	□	□	□	□	○	--	□	□	□	--	--
Bromobenzene	○	--	--	--	--	--	--	--	--	--	--	--
Bromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	○	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	○	--	--
Carbon disulfide						--				--	--	
Carbon tetrachloride	--	--	--	--	○	○	--	--	--	--	--	--
Chlorobenzene	○	○	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	○	--	--
Chloroform	--	--	--	--	□	--	--	--	--	--	--	--

Analyte	Subarea											
	1	2	3	4	5	6	7	8	9	10	11	12
Chloromethane	--	--	--	--	--	--	--	--	--	□	○	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--					--				--	--	
Dibromochloromethane	--	--	--	--	--	--	--	--	--	□	--	--
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	--	--	--	□	--	--	□	--	--	--	--	--
Dichlorofluoromethane (Freon 21)	--	--	--	--	--	--		--	--	--	--	--
Ethylbenzene	□	□	--	--	○	○	□	○	□	○	□	--
Isopropylbenzene (Cumene)	□	□	--	--	○	○	--	--	--	--	□	--
m,p-Xylene (sum of isomers)	□	--	--	--	--	--		--	--	--	□	--
Methylene chloride	□	○	--	□	□	□	--	--	○	□	□	□
Naphthalene	□	□	□	--	□	○	--	○	□	□	□	○
n-Butylbenzene	□	○	--	--	--	○	--	--	--	--	○	--
n-Propylbenzene	□	□	--	--	--	○	--	○	--	--	□	--
sec-Butylbenzene	□	○	--	--	--	○	--	--	--	--	□	--
Styrene	□	□	□	□	○	□	--	○	□	--	○	--
tert-Butyl methyl ether (MTBE)	--	--	--	--	--	--		--	--	--	--	--
tert-Butylbenzene	○	--	--	--	○	--	--	--	--	--	○	--
Tetrachloroethene (PCE)	□	□	--	--	○	--	--	○	□	--	□	--
Toluene	□	□	□	□	□	□	□	□	□	□	□	--
trans-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--					--				--	--	
Trichloroethene (TCE)	--	○	--	--	--	○	--	○	--	□	○	□
Trichlorofluoromethane (Freon 11)	○	□	□	--	□	□	□	□	□	□	□	□
Vinyl acetate						--				--	--	
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	○	--
Xylenes, total	□	□	□	--	□	○	□	○	□	□	□	--
Total number of analytes	**196**	**194**	**194**	**193**	**193**	**202**	**189**	**194**	**194**	**203**	**203**	**193**

Key:
□ □ Greater than 5 percent detects (or at least one detect if sample size is less than 20 per subarea).
-- □ Not detected in any samples, regardless of sample size.
○ □ Between 0 and 5 percent detects with a sample size of 20 or greater per subarea.
Blank space indicates the analyte was not measured in a subarea.

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	01	27	2.40E+00	5.51E-01	4.20E-01	6.3	N	0%	96%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	02	42	2.50E+00	6.20E-01	4.20E-01	6.3	N	0%	98%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	03	1	4.46E-01	4.46E-01	4.46E-01	6.3	N	0%	100%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	04	6	4.38E+00	1.23E+00	4.38E-01	6.3	N	0%	100%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	05	18	2.50E+00	9.00E-01	4.33E-01	6.3	N	0%	100%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	06	9	2.50E+00	7.62E-01	4.34E-01	6.3	N	0%	100%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	08	19	2.50E+00	8.01E-01	4.40E-01	6.3	N	0%	95%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	09	20	2.45E+00	5.24E-01	4.37E-01	6.3	N	0%	100%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	10	21	2.50E+00	6.80E-01	4.39E-01	6.3	N	0%	100%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	11	30	2.50E+00	7.78E-01	4.33E-01	6.3	N	0%	100%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	12	17	7.05E-01	4.67E-01	4.38E-01	6.3	N	0%	100%
Herbicides	2,4-DB	01	27	1.70E-02	1.50E-02	5.00E-03	51	N	0%	100%
Herbicides	2,4-DB	02	42	1.59E-02	1.44E-02	5.00E-03	51	N	0%	100%
Herbicides	2,4-DB	03	1	1.54E-02	1.54E-02	1.54E-02	51	N	0%	100%
Herbicides	2,4-DB	04	12	1.51E-01	2.43E-02	5.00E-03	51	N	0%	100%
Herbicides	2,4-DB	05	17	1.56E-02	1.43E-02	1.00E-02	51	N	0%	100%
Herbicides	2,4-DB	06	8	1.57E-02	1.40E-02	5.00E-03	51	N	0%	100%
Herbicides	2,4-DB	08	19	1.60E-02	1.44E-02	1.00E-02	51	N	0%	100%
Herbicides	2,4-DB	09	20	8.50E-02	1.81E-02	1.50E-02	51	N	0%	100%
Herbicides	2,4-DB	10	21	4.11E-02	1.62E-02	1.00E-02	51	N	0%	100%
Herbicides	2,4-DB	11	30	8.25E-02	1.92E-02	1.00E-02	51	N	0%	100%
Herbicides	2,4-DB	12	17	2.43E-02	1.61E-02	1.51E-02	51	N	0%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	01	27	1.25E+00	7.62E-01	7.00E-01	3.2	N	0%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	02	42	2.50E+00	8.19E-01	7.00E-01	3.2	N	0%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	03	1	7.40E-01	7.40E-01	7.40E-01	3.2	N	0%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	04	6	7.30E+00	1.92E+00	7.30E-01	3.2	Y	17%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	05	18	2.50E+00	1.13E+00	7.00E-01	3.2	N	0%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	06	9	2.50E+00	9.93E-01	7.20E-01	3.2	N	0%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	08	19	2.50E+00	1.06E+00	7.00E-01	3.2	N	0%	95%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	09	20	4.00E+00	8.73E-01	7.30E-01	3.2	Y	5%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	10	21	2.50E+00	9.75E-01	7.30E-01	3.2	N	0%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	11	30	3.98E+00	1.13E+00	7.20E-01	3.2	Y	7%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	12	17	1.17E+00	7.79E-01	7.30E-01	3.2	N	0%	100%
Herbicides	Dalapon	01	27	1.80E-02	1.60E-02	5.00E-03	190	N	0%	100%
Herbicides	Dalapon	02	42	1.69E-02	1.54E-02	5.00E-03	190	N	0%	100%
Herbicides	Dalapon	03	1	1.65E-02	1.65E-02	1.65E-02	190	N	0%	100%
Herbicides	Dalapon	04	12	1.62E-01	2.56E-02	5.00E-03	190	N	0%	100%
Herbicides	Dalapon	05	18	1.67E-02	1.49E-02	1.00E-02	190	N	0%	100%
Herbicides	Dalapon	06	9	1.68E-02	1.44E-02	5.00E-03	190	N	0%	100%
Herbicides	Dalapon	08	19	1.75E-02	1.54E-02	1.00E-02	190	N	0%	100%
Herbicides	Dalapon	09	18	9.00E-02	1.91E-02	1.60E-02	190	N	0%	100%
Herbicides	Dalapon	10	21	1.72E-02	1.60E-02	1.00E-02	190	N	0%	100%
Herbicides	Dalapon	11	30	8.80E-02	2.05E-02	1.00E-02	190	N	0%	100%
Herbicides	Dalapon	12	17	2.60E-02	1.72E-02	1.62E-02	190	N	0%	100%
Herbicides	Dicamba	01	27	1.00E-02	3.25E-03	2.80E-03	190	N	0%	100%
Herbicides	Dicamba	02	42	2.00E-02	3.89E-03	2.80E-03	190	N	0%	100%
Herbicides	Dicamba	03	1	2.97E-03	2.97E-03	2.97E-03	190	N	0%	100%
Herbicides	Dicamba	04	12	2.92E-02	1.47E-02	2.92E-03	190	N	0%	100%
Herbicides	Dicamba	05	18	2.00E-02	6.74E-03	2.89E-03	190	N	0%	100%
Herbicides	Dicamba	06	9	2.00E-02	5.63E-03	2.89E-03	190	N	0%	100%
Herbicides	Dicamba	08	19	2.00E-02	5.87E-03	2.90E-03	190	N	0%	100%
Herbicides	Dicamba	09	20	1.60E-02	3.48E-03	2.91E-03	190	N	0%	100%
Herbicides	Dicamba	10	21	2.00E-02	4.61E-03	2.93E-03	190	N	0%	100%
Herbicides	Dicamba	11	30	2.00E-02	5.52E-03	2.89E-03	190	N	0%	100%
Herbicides	Dicamba	12	17	4.69E-03	3.11E-03	2.92E-03	190	N	0%	100%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	01	27	1.00E-02	3.16E-03	2.70E-03	70	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	02	42	2.00E-02	3.80E-03	2.70E-03	70	N	0%	100%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	03	1	2.87E-03	2.87E-03	2.87E-03	70	N	0%	100%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	04	12	2.81E-02	1.45E-02	2.82E-03	70	N	0%	100%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	05	18	2.00E-02	6.66E-03	2.79E-03	70	N	0%	100%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	06	9	2.00E-02	5.55E-03	2.79E-03	70	N	0%	100%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	08	19	2.00E-02	5.59E-03	2.84E-03	70	N	0%	100%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	09	20	7.50E-02	4.93E-03	2.81E-03	70	N	0%	97%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	10	21	2.00E-02	4.59E-03	2.82E-03	70	N	0%	100%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	11	30	2.00E-02	5.40E-03	2.79E-03	70	N	0%	100%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	12	17	4.52E-03	3.00E-03	2.81E-03	70	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	01	27	7.50E-03	3.95E-03	3.55E-03	63	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	02	42	1.50E-02	4.31E-03	3.55E-03	63	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	03	1	3.77E-03	3.77E-03	3.77E-03	63	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	04	12	3.70E-02	1.33E-02	3.70E-03	63	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	05	18	1.50E-02	6.25E-03	3.66E-03	63	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	06	9	1.50E-02	5.42E-03	3.67E-03	63	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	08	19	1.50E-02	6.44E-03	3.74E-03	63	N	0%	89%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	09	20	2.05E-02	4.43E-03	3.69E-03	63	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	10	21	1.50E-02	4.87E-03	3.71E-03	63	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	11	30	2.02E-02	5.96E-03	3.66E-03	63	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	12	17	5.95E-03	3.95E-03	3.70E-03	63	N	0%	100%
Metals	Aluminum	01	46	1.00E+04	6.36E+03	4.10E+03	7700	Y	13%	0%
Metals	Aluminum	02	52	9.90E+03	5.98E+03	3.50E+03	7700	Y	12%	0%
Metals	Aluminum	03	2	1.00E+04	8.10E+03	6.20E+03	7700	Y	50%	0%
Metals	Aluminum	04	14	8.10E+03	5.71E+03	3.50E+03	7700	Y	14%	0%
Metals	Aluminum	05	25	6.90E+03	5.19E+03	3.30E+03	7700	N	0%	0%
Metals	Aluminum	06	16	1.20E+04	6.16E+03	3.80E+03	7700	Y	13%	0%
Metals	Aluminum	08	22	8.20E+03	5.38E+03	1.20E+03	7700	Y	5%	0%
Metals	Aluminum	09	29	1.30E+04	7.17E+03	3.00E+03	7700	Y	38%	0%
Metals	Aluminum	10	33	1.90E+04	6.08E+03	3.10E+03	7700	Y	12%	0%
Metals	Aluminum	11	31	9.70E+03	5.79E+03	3.80E+03	7700	Y	16%	0%
Metals	Aluminum	12	20	9.70E+03	5.55E+03	2.30E+03	7700	Y	5%	0%
Metals	Antimony	01	29	4.10E+00	4.40E-01	3.90E-02	3.1	Y	3%	72%
Metals	Antimony	02	28	1.60E+01	1.51E+00	2.40E-02	3.1	Y	7%	43%
Metals	Antimony	03	1	2.70E-01	2.70E-01	2.70E-01	3.1	N	0%	100%
Metals	Antimony	04	25	2.80E+00	6.15E-01	3.80E-02	3.1	N	0%	32%
Metals	Antimony	05	26	2.10E+00	5.58E-01	2.55E-01	3.1	N	0%	73%
Metals	Antimony	06	16	5.60E+00	8.03E-01	2.40E-02	3.1	Y	6%	69%
Metals	Antimony	07	4	3.70E+00	1.21E+00	2.60E-01	3.1	Y	25%	50%
Metals	Antimony	08	18	4.30E+00	9.74E-01	1.40E-01	3.1	Y	11%	28%
Metals	Antimony	09	16	5.70E+00	1.60E+00	2.40E-02	3.1	Y	25%	38%
Metals	Antimony	10	25	7.10E+00	1.38E+00	2.50E-02	3.1	Y	16%	48%
Metals	Antimony	11	17	5.60E+00	9.65E-01	4.30E-02	3.1	Y	12%	59%
Metals	Antimony	12	8	1.90E+00	4.90E-01	2.00E-01	3.1	N	0%	25%
Metals	Arsenic	01	53	1.20E+01	4.51E+00	1.40E+00	0.68	Y	100%	0%
Metals	Arsenic	02	67	2.50E+01	5.59E+00	1.40E+00	0.68	Y	100%	0%
Metals	Arsenic	03	2	5.20E+00	4.25E+00	3.30E+00	0.68	Y	100%	0%
Metals	Arsenic	04	28	3.40E+01	1.01E+01	2.10E+00	0.68	Y	100%	0%
Metals	Arsenic	05	44	2.70E+02	1.38E+01	2.30E+00	0.68	Y	100%	0%
Metals	Arsenic	06	23	9.00E+00	4.33E+00	2.40E+00	0.68	Y	100%	0%
Metals	Arsenic	07	4	6.60E+01	2.24E+01	4.50E+00	0.68	Y	100%	0%
Metals	Arsenic	08	34	6.70E+01	8.97E+00	2.10E+00	0.68	Y	100%	0%
Metals	Arsenic	09	35	1.50E+02	2.14E+01	1.50E+00	0.68	Y	100%	0%
Metals	Arsenic	10	43	4.30E+01	7.89E+00	1.80E+00	0.68	Y	100%	0%
Metals	Arsenic	11	45	5.40E+01	6.36E+00	2.00E+00	0.68	Y	100%	0%
Metals	Arsenic	12	20	1.40E+01	5.55E+00	2.30E+00	0.68	Y	100%	0%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Metals	Barium	01	46	1.70E+02	6.19E+01	2.90E+01	1500	N	0%	0%
Metals	Barium	02	52	1.50E+02	5.98E+01	1.50E+01	1500	N	0%	0%
Metals	Barium	03	2	8.50E+01	6.55E+01	4.60E+01	1500	N	0%	0%
Metals	Barium	04	14	3.70E+02	8.94E+01	2.80E+01	1500	N	0%	0%
Metals	Barium	05	25	8.60E+01	5.06E+01	2.10E+01	1500	N	0%	0%
Metals	Barium	06	16	1.00E+02	5.29E+01	3.60E+01	1500	N	0%	0%
Metals	Barium	08	22	4.00E+02	8.87E+01	4.10E+01	1500	N	0%	0%
Metals	Barium	09	29	2.50E+02	8.46E+01	2.50E+01	1500	N	0%	0%
Metals	Barium	10	33	2.70E+02	6.67E+01	2.60E+01	1500	N	0%	0%
Metals	Barium	11	31	1.10E+02	5.07E+01	3.10E+01	1500	N	0%	0%
Metals	Barium	12	20	9.90E+01	5.59E+01	1.30E+01	1500	N	0%	0%
Metals	Beryllium	01	46	7.10E-01	2.86E-01	1.30E-01	16	N	0%	2%
Metals	Beryllium	02	52	4.60E-01	2.47E-01	8.00E-02	16	N	0%	6%
Metals	Beryllium	03	2	4.20E-01	3.60E-01	3.00E-01	16	N	0%	0%
Metals	Beryllium	04	14	4.90E-01	2.53E-01	1.10E-01	16	N	0%	0%
Metals	Beryllium	05	25	3.70E-01	2.19E-01	4.90E-02	16	N	0%	0%
Metals	Beryllium	06	16	4.25E-01	2.66E-01	2.00E-01	16	N	0%	19%
Metals	Beryllium	08	22	4.40E-01	2.35E-01	3.80E-02	16	N	0%	9%
Metals	Beryllium	09	29	5.30E-01	2.50E-01	8.00E-02	16	N	0%	10%
Metals	Beryllium	10	33	4.30E-01	2.48E-01	8.00E-02	16	N	0%	12%
Metals	Beryllium	11	31	3.70E-01	2.51E-01	1.25E-01	16	N	0%	3%
Metals	Beryllium	12	20	4.80E-01	3.07E-01	7.00E-02	16	N	0%	0%
Metals	Boron	01	46	4.90E+00	2.65E+00	6.50E-01	1600	N	0%	37%
Metals	Boron	02	52	9.10E+00	2.65E+00	7.50E-01	1600	N	0%	45%
Metals	Boron	03	2	5.00E+00	4.10E+00	3.20E+00	1600	N	0%	0%
Metals	Boron	04	14	6.90E+00	2.56E+00	8.00E-03	1600	N	0%	29%
Metals	Boron	05	25	4.70E+00	1.80E+00	2.30E-01	1600	N	0%	60%
Metals	Boron	06	16	3.10E+00	1.79E+00	7.00E-01	1600	N	0%	56%
Metals	Boron	08	22	7.50E+00	1.81E+00	2.85E-03	1600	N	0%	64%
Metals	Boron	09	29	9.40E+00	2.40E+00	3.70E-03	1600	N	0%	59%
Metals	Boron	10	33	1.40E+01	2.61E+00	4.35E-01	1600	N	0%	58%
Metals	Boron	11	31	4.30E+00	2.21E+00	2.65E-03	1600	N	0%	39%
Metals	Boron	12	20	6.50E+00	1.87E+00	2.65E-03	1600	N	0%	55%
Metals	Cadmium	01	46	1.30E+00	3.36E-01	1.25E-01	7.1	N	0%	39%
Metals	Cadmium	02	52	1.20E+00	3.67E-01	1.05E-01	7.1	N	0%	24%
Metals	Cadmium	03	2	2.30E-01	1.83E-01	1.35E-01	7.1	N	0%	50%
Metals	Cadmium	04	14	1.10E+00	4.13E-01	1.20E-01	7.1	N	0%	14%
Metals	Cadmium	05	25	1.30E+00	3.17E-01	1.10E-01	7.1	N	0%	28%
Metals	Cadmium	06	16	1.40E+00	3.52E-01	1.30E-01	7.1	N	0%	44%
Metals	Cadmium	08	22	2.50E+00	4.93E-01	1.30E-01	7.1	N	0%	9%
Metals	Cadmium	09	29	1.10E+00	3.51E-01	1.10E-01	7.1	N	0%	31%
Metals	Cadmium	10	33	8.10E-01	2.68E-01	1.20E-01	7.1	N	0%	33%
Metals	Cadmium	11	31	1.90E+00	3.24E-01	1.40E-01	7.1	N	0%	0%
Metals	Cadmium	12	20	5.70E-01	2.03E-01	2.55E-02	7.1	N	0%	15%
Metals	Chromium	01	53	1.20E+01	5.51E+00	2.90E+00	12000	N	0%	0%
Metals	Chromium	02	67	2.20E+01	6.06E+00	1.60E+00	12000	N	0%	0%
Metals	Chromium	03	2	6.40E+00	5.30E+00	4.20E+00	12000	N	0%	0%
Metals	Chromium	04	28	4.20E+01	7.70E+00	2.60E+00	12000	N	0%	0%
Metals	Chromium	05	44	4.30E+01	6.50E+00	1.90E+00	12000	N	0%	0%
Metals	Chromium	06	23	1.40E+01	5.81E+00	2.60E+00	12000	N	0%	0%
Metals	Chromium	07	4	1.40E+01	7.63E+00	4.10E+00	12000	N	0%	0%
Metals	Chromium	08	34	2.80E+01	7.28E+00	2.70E+00	12000	N	0%	0%
Metals	Chromium	09	35	4.80E+01	1.14E+01	2.80E+00	12000	N	0%	0%
Metals	Chromium	10	43	1.60E+01	6.31E+00	2.60E+00	12000	N	0%	0%
Metals	Chromium	11	45	4.10E+01	7.29E+00	2.10E+00	12000	N	0%	0%
Metals	Chromium	12	20	9.00E+00	3.88E+00	1.40E+00	12000	N	0%	0%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Metals	Cobalt	01	46	9.60E+00	4.06E+00	2.70E+00	2.3	Y	100%	0%
Metals	Cobalt	02	52	9.90E+00	3.95E+00	1.80E+00	2.3	Y	94%	0%
Metals	Cobalt	03	2	8.10E+00	5.80E+00	3.50E+00	2.3	Y	100%	0%
Metals	Cobalt	04	14	1.90E+01	6.11E+00	2.40E+00	2.3	Y	100%	0%
Metals	Cobalt	05	25	2.20E+01	4.78E+00	1.30E+00	2.3	Y	88%	0%
Metals	Cobalt	06	16	2.20E+01	4.76E+00	2.20E+00	2.3	Y	94%	0%
Metals	Cobalt	08	22	1.40E+01	4.04E+00	2.40E+00	2.3	Y	100%	0%
Metals	Cobalt	09	29	3.90E+01	4.98E+00	7.90E-01	2.3	Y	79%	3%
Metals	Cobalt	10	33	8.70E+00	4.00E+00	1.20E+00	2.3	Y	85%	0%
Metals	Cobalt	11	31	6.50E+00	3.41E+00	2.10E+00	2.3	Y	90%	0%
Metals	Cobalt	12	20	8.50E+00	4.14E+00	1.70E+00	2.3	Y	75%	0%
Metals	Copper	01	53	3.90E+03	3.16E+02	4.80E+01	310	Y	26%	0%
Metals	Copper	02	67	4.60E+03	6.69E+02	3.60E+01	310	Y	41%	0%
Metals	Copper	03	2	6.20E+02	3.36E+02	5.10E+01	310	Y	50%	0%
Metals	Copper	04	28	6.10E+03	1.27E+03	3.90E+01	310	Y	75%	0%
Metals	Copper	05	44	1.70E+05	7.98E+03	4.60E+01	310	Y	80%	0%
Metals	Copper	06	23	9.10E+03	1.36E+03	5.30E+01	310	Y	48%	0%
Metals	Copper	07	4	1.10E+03	4.35E+02	4.00E+01	310	Y	50%	0%
Metals	Copper	08	34	1.70E+04	1.31E+03	5.60E+01	310	Y	68%	0%
Metals	Copper	09	35	6.60E+03	8.20E+02	3.20E+01	310	Y	57%	0%
Metals	Copper	10	43	3.00E+04	2.06E+03	4.00E+01	310	Y	49%	0%
Metals	Copper	11	45	5.50E+03	9.88E+02	3.20E+01	310	Y	47%	0%
Metals	Copper	12	20	8.70E+03	1.61E+03	5.00E+00	310	Y	60%	0%
Metals	Iron	01	53	1.60E+04	1.10E+04	6.90E+03	5500	Y	100%	0%
Metals	Iron	02	67	4.20E+04	1.10E+04	6.20E+03	5500	Y	100%	0%
Metals	Iron	03	2	1.30E+04	1.12E+04	9.40E+03	5500	Y	100%	0%
Metals	Iron	04	28	6.00E+04	1.46E+04	6.20E+03	5500	Y	100%	0%
Metals	Iron	05	44	2.00E+04	1.21E+04	7.30E+03	5500	Y	100%	0%
Metals	Iron	06	23	2.30E+04	1.26E+04	7.50E+03	5500	Y	100%	0%
Metals	Iron	07	4	4.30E+04	2.08E+04	1.10E+04	5500	Y	100%	0%
Metals	Iron	08	34	6.30E+04	1.51E+04	7.10E+03	5500	Y	100%	0%
Metals	Iron	09	35	7.90E+04	2.26E+04	5.40E+03	5500	Y	97%	0%
Metals	Iron	10	43	4.30E+04	1.62E+04	6.40E+03	5500	Y	100%	0%
Metals	Iron	11	45	4.20E+04	1.21E+04	6.90E+03	5500	Y	100%	0%
Metals	Iron	12	20	1.60E+04	1.03E+04	3.90E+03	5500	Y	95%	0%
Metals	Lead	01	53	1.50E+03	3.56E+01	2.30E+00	400	Y	2%	0%
Metals	Lead	02	67	1.30E+03	6.11E+01	1.20E+00	400	Y	5%	0%
Metals	Lead	03	2	5.80E+00	4.55E+00	3.30E+00	400	N	0%	0%
Metals	Lead	04	28	3.40E+02	3.62E+01	2.20E+00	400	N	0%	0%
Metals	Lead	05	44	5.50E+02	4.35E+01	2.10E+00	400	Y	2%	0%
Metals	Lead	06	23	8.10E+01	8.10E+00	2.50E+00	400	N	0%	0%
Metals	Lead	07	4	1.50E+01	7.53E+00	2.80E+00	400	N	0%	0%
Metals	Lead	08	34	1.80E+02	1.92E+01	2.80E+00	400	N	0%	0%
Metals	Lead	09	35	2.00E+02	2.67E+01	2.20E+00	400	N	0%	0%
Metals	Lead	10	43	1.50E+02	1.45E+01	2.20E+00	400	N	0%	0%
Metals	Lead	11	45	3.30E+02	2.43E+01	1.90E+00	400	N	0%	0%
Metals	Lead	12	20	7.40E+00	4.56E+00	1.30E+00	400	N	0%	0%
Metals	Manganese	01	46	4.40E+02	1.83E+02	6.00E+01	180	Y	43%	0%
Metals	Manganese	02	52	3.20E+02	1.61E+02	6.50E+01	180	Y	33%	0%
Metals	Manganese	03	2	2.60E+02	2.15E+02	1.70E+02	180	Y	50%	0%
Metals	Manganese	04	14	2.90E+02	1.48E+02	2.60E+01	180	Y	36%	0%
Metals	Manganese	05	25	4.20E+02	1.50E+02	2.90E+01	180	Y	36%	0%
Metals	Manganese	06	16	6.40E+02	1.68E+02	4.10E+01	180	Y	13%	0%
Metals	Manganese	08	22	3.20E+02	1.56E+02	3.40E+01	180	Y	36%	0%
Metals	Manganese	09	29	3.40E+02	1.18E+02	1.60E+01	180	Y	24%	0%
Metals	Manganese	10	33	4.40E+02	1.32E+02	3.00E+01	180	Y	30%	0%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Metals	Manganese	11	31	2.70E+02	1.43E+02	7.30E+01	180	Y	29%	0%
Metals	Manganese	12	20	3.70E+02	1.49E+02	3.30E+01	180	Y	45%	0%
Metals	Mercury	01	53	5.70E-01	5.21E-02	7.00E-05	1.1	N	0%	9%
Metals	Mercury	02	67	3.20E+00	2.15E-01	7.00E-05	1.1	Y	5%	9%
Metals	Mercury	03	2	3.50E-02	2.65E-02	1.80E-02	1.1	N	0%	0%
Metals	Mercury	04	28	5.10E+00	8.36E-01	7.00E-05	1.1	Y	21%	4%
Metals	Mercury	05	44	3.20E+00	2.36E-01	7.00E-05	1.1	Y	5%	2%
Metals	Mercury	06	23	6.20E-01	8.06E-02	7.00E-05	1.1	N	0%	13%
Metals	Mercury	07	4	5.70E-01	4.10E-01	9.00E-02	1.1	N	0%	0%
Metals	Mercury	08	34	7.90E+00	5.84E-01	7.00E-05	1.1	Y	12%	9%
Metals	Mercury	09	35	6.40E+00	5.78E-01	7.00E-05	1.1	Y	11%	6%
Metals	Mercury	10	43	4.50E+00	3.43E-01	7.50E-05	1.1	Y	7%	2%
Metals	Mercury	11	45	5.20E+00	3.22E-01	7.00E-05	1.1	Y	7%	11%
Metals	Mercury	12	20	7.20E-01	1.77E-01	7.00E-05	1.1	N	0%	10%
Metals	Molybdenum	01	46	9.20E+00	8.53E-01	1.00E-02	39	N	0%	24%
Metals	Molybdenum	02	52	1.90E+01	1.28E+00	2.05E-02	39	N	0%	12%
Metals	Molybdenum	03	2	2.80E-01	2.75E-01	2.70E-01	39	N	0%	50%
Metals	Molybdenum	04	14	3.60E+00	1.10E+00	2.10E-01	39	N	0%	0%
Metals	Molybdenum	05	25	6.00E+00	1.25E+00	1.30E-01	39	N	0%	20%
Metals	Molybdenum	06	16	5.40E+00	1.47E+00	1.75E-01	39	N	0%	13%
Metals	Molybdenum	08	22	2.00E+01	2.46E+00	1.10E-01	39	N	0%	5%
Metals	Molybdenum	09	29	1.60E+01	3.87E+00	7.00E-02	39	N	0%	7%
Metals	Molybdenum	10	33	1.00E+01	2.85E+00	6.00E-02	39	N	0%	24%
Metals	Molybdenum	11	31	4.10E+00	6.82E-01	1.30E-01	39	N	0%	13%
Metals	Molybdenum	12	20	6.50E+00	2.07E+00	7.20E-02	39	N	0%	0%
Metals	Nickel	01	46	1.40E+01	5.58E+00	3.40E+00	150	N	0%	2%
Metals	Nickel	02	52	1.40E+01	5.74E+00	2.50E+00	150	N	0%	0%
Metals	Nickel	03	2	6.30E+00	5.40E+00	4.50E+00	150	N	0%	0%
Metals	Nickel	04	14	5.50E+01	1.11E+01	3.20E+00	150	N	0%	0%
Metals	Nickel	05	25	8.20E+01	9.64E+00	3.70E+00	150	N	0%	0%
Metals	Nickel	06	16	1.60E+01	5.93E+00	3.00E+00	150	N	0%	0%
Metals	Nickel	08	22	3.90E+01	6.93E+00	3.10E+00	150	N	0%	0%
Metals	Nickel	09	29	7.90E+01	8.56E+00	9.60E-01	150	N	0%	0%
Metals	Nickel	10	33	2.20E+01	5.95E+00	1.60E+00	150	N	0%	0%
Metals	Nickel	11	31	2.00E+01	5.49E+00	2.70E+00	150	N	0%	0%
Metals	Nickel	12	20	1.20E+01	5.80E+00	2.60E+00	150	N	0%	0%
Metals	Selenium	01	53	1.10E+01	7.53E-01	8.50E-02	39	N	0%	55%
Metals	Selenium	02	67	8.20E+01	3.36E+00	8.50E-02	39	Y	3%	45%
Metals	Selenium	03	2	2.70E-01	1.78E-01	8.50E-02	39	N	0%	100%
Metals	Selenium	04	28	2.00E+01	5.13E+00	8.50E-02	39	N	0%	21%
Metals	Selenium	05	44	2.10E+01	1.98E+00	8.50E-02	39	N	0%	16%
Metals	Selenium	06	23	6.20E+00	1.34E+00	8.50E-02	39	N	0%	35%
Metals	Selenium	07	4	7.00E+00	4.18E+00	1.90E+00	39	N	0%	0%
Metals	Selenium	08	34	3.50E+01	4.45E+00	1.70E-01	39	N	0%	9%
Metals	Selenium	09	35	2.20E+01	4.64E+00	8.50E-02	39	N	0%	29%
Metals	Selenium	10	43	3.60E+01	3.96E+00	8.50E-02	39	N	0%	33%
Metals	Selenium	11	45	1.50E+01	1.50E+00	8.00E-02	39	N	0%	40%
Metals	Selenium	12	20	7.70E+00	2.50E+00	8.50E-02	39	N	0%	25%
Metals	Silver	01	46	1.70E-01	9.77E-02	2.35E-02	39	N	0%	50%
Metals	Silver	02	52	4.20E+00	1.80E-01	1.00E-02	39	N	0%	47%
Metals	Silver	03	2	1.35E-01	1.02E-01	6.90E-02	39	N	0%	50%
Metals	Silver	04	14	4.80E-01	1.42E-01	2.80E-02	39	N	0%	36%
Metals	Silver	05	25	2.30E-01	1.02E-01	2.30E-02	39	N	0%	32%
Metals	Silver	06	16	7.00E-01	1.98E-01	2.40E-02	39	N	0%	56%
Metals	Silver	08	22	7.90E-01	1.91E-01	5.20E-02	39	N	0%	9%
Metals	Silver	09	29	1.50E+00	2.01E-01	3.70E-02	39	N	0%	24%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Metals	Silver	10	33	2.10E+00	3.48E-01	3.25E-02	39	N	0%	18%
Metals	Silver	11	31	4.00E-01	9.25E-02	3.10E-02	39	N	0%	19%
Metals	Silver	12	20	6.30E-01	1.52E-01	3.30E-02	39	N	0%	10%
Metals	Thallium	01	53	1.10E+00	1.68E-01	3.85E-02	0.078	Y	77%	43%
Metals	Thallium	02	67	1.70E+00	2.43E-01	2.10E-03	0.078	Y	73%	35%
Metals	Thallium	03	2	1.35E-01	1.03E-01	7.10E-02	0.078	Y	50%	50%
Metals	Thallium	04	28	2.90E+00	4.33E-01	1.40E-02	0.078	Y	89%	29%
Metals	Thallium	05	44	7.00E-01	1.81E-01	2.10E-02	0.078	Y	82%	55%
Metals	Thallium	06	23	7.00E-01	1.81E-01	9.00E-03	0.078	Y	74%	74%
Metals	Thallium	07	4	3.90E+00	1.20E+00	1.30E-01	0.078	Y	100%	50%
Metals	Thallium	08	34	2.30E+00	3.21E-01	1.05E-03	0.078	Y	74%	44%
Metals	Thallium	09	35	1.50E+01	1.42E+00	2.30E-02	0.078	Y	83%	23%
Metals	Thallium	10	43	2.20E+00	2.05E-01	2.65E-03	0.078	Y	70%	63%
Metals	Thallium	11	45	3.80E+00	2.71E-01	1.05E-03	0.078	Y	64%	36%
Metals	Thallium	12	20	2.60E-01	1.08E-01	1.10E-03	0.078	Y	55%	30%
Metals	Uranium	01	19	6.72E+00	1.56E+00	6.45E-01	23	N	0%	0%
Metals	Uranium	02	16	6.30E+00	1.97E+00	7.96E-01	23	N	0%	0%
Metals	Uranium	03	2	2.10E+00	1.70E+00	1.30E+00	23	N	0%	0%
Metals	Uranium	04	27	1.10E+01	2.37E+00	8.37E-01	23	N	0%	0%
Metals	Uranium	05	39	1.30E+02	6.56E+00	5.00E-01	23	Y	3%	0%
Metals	Uranium	06	21	2.33E+00	1.22E+00	7.62E-01	23	N	0%	0%
Metals	Uranium	07	4	2.87E+01	8.42E+00	1.14E+00	23	Y	25%	0%
Metals	Uranium	08	19	1.50E+02	1.08E+01	9.18E-01	23	Y	5%	0%
Metals	Uranium	09	35	5.38E+01	1.04E+01	6.42E-01	23	Y	14%	0%
Metals	Uranium	10	26	1.06E+01	2.79E+00	3.56E-01	23	N	0%	0%
Metals	Uranium	11	15	7.05E+00	1.97E+00	6.79E-01	23	N	0%	0%
Metals	Uranium	12	11	3.10E+00	1.69E+00	2.50E-01	23	N	0%	9%
Metals	Vanadium	01	46	3.90E+01	1.95E+01	1.00E+01	39	Y	2%	0%
Metals	Vanadium	02	52	3.40E+01	1.63E+01	6.00E+00	39	N	0%	0%
Metals	Vanadium	03	2	2.90E+01	2.15E+01	1.40E+01	39	N	0%	0%
Metals	Vanadium	04	14	3.00E+01	1.70E+01	1.00E+01	39	N	0%	0%
Metals	Vanadium	05	25	2.70E+01	1.66E+01	8.10E+00	39	N	0%	0%
Metals	Vanadium	06	16	3.70E+01	1.86E+01	9.20E+00	39	N	0%	0%
Metals	Vanadium	08	22	3.00E+01	1.46E+01	5.00E+00	39	N	0%	0%
Metals	Vanadium	09	29	4.10E+01	1.97E+01	9.80E+00	39	Y	3%	0%
Metals	Vanadium	10	33	4.10E+01	1.72E+01	7.70E+00	39	Y	3%	0%
Metals	Vanadium	11	31	2.40E+01	1.33E+01	8.10E+00	39	N	0%	0%
Metals	Vanadium	12	20	3.70E+01	1.58E+01	7.40E+00	39	N	0%	0%
Metals	Zinc	01	46	2.30E+03	7.63E+01	1.10E+01	2300	Y	2%	0%
Metals	Zinc	02	52	7.10E+03	1.84E+02	9.60E+00	2300	Y	2%	0%
Metals	Zinc	03	2	2.80E+01	2.25E+01	1.70E+01	2300	N	0%	0%
Metals	Zinc	04	14	9.00E+01	3.87E+01	1.10E+01	2300	N	0%	0%
Metals	Zinc	05	25	4.60E+02	5.49E+01	1.00E+01	2300	N	0%	0%
Metals	Zinc	06	16	2.00E+02	3.47E+01	9.00E+00	2300	N	0%	19%
Metals	Zinc	08	22	6.00E+01	2.21E+01	1.10E+01	2300	N	0%	0%
Metals	Zinc	09	29	7.80E+01	2.31E+01	6.90E+00	2300	N	0%	3%
Metals	Zinc	10	33	7.70E+01	2.13E+01	5.50E+00	2300	N	0%	9%
Metals	Zinc	11	31	5.70E+02	4.16E+01	9.20E+00	2300	N	0%	0%
Metals	Zinc	12	20	5.70E+01	2.00E+01	7.70E+00	2300	N	0%	0%
PCBs	Aroclor 1016	01	28	1.95E-02	1.89E-03	9.00E-04	0.41	N	0%	100%
PCBs	Aroclor 1016	02	47	1.85E-02	2.23E-03	9.00E-04	0.41	N	0%	100%
PCBs	Aroclor 1016	03	1	9.50E-04	9.50E-04	9.50E-04	0.41	N	0%	100%
PCBs	Aroclor 1016	04	14	9.00E-03	4.58E-03	9.50E-04	0.41	N	0%	100%
PCBs	Aroclor 1016	05	18	9.00E-03	2.30E-03	9.00E-04	0.41	N	0%	100%
PCBs	Aroclor 1016	06	9	6.00E-03	1.98E-03	9.00E-04	0.41	N	0%	100%
PCBs	Aroclor 1016	08	19	3.10E-03	1.31E-03	9.50E-04	0.41	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
PCBs	Aroclor 1016	09	20	1.00E-02	1.93E-03	9.00E-04	0.41	N	0%	100%
PCBs	Aroclor 1016	10	22	1.30E-02	3.26E-03	9.50E-04	0.41	N	0%	100%
PCBs	Aroclor 1016	11	31	9.00E-03	3.71E-03	9.00E-04	0.41	N	0%	100%
PCBs	Aroclor 1016	12	18	6.50E-03	4.07E-03	9.50E-04	0.41	N	0%	100%
PCBs	Aroclor 1221	01	28	2.20E-01	1.78E-02	5.50E-03	0.2	Y	4%	100%
PCBs	Aroclor 1221	02	47	2.10E-01	1.61E-02	5.00E-03	0.2	Y	2%	100%
PCBs	Aroclor 1221	03	1	1.05E-02	1.05E-02	1.05E-02	0.2	N	0%	100%
PCBs	Aroclor 1221	04	14	1.05E-02	6.43E-03	5.00E-03	0.2	N	0%	100%
PCBs	Aroclor 1221	05	18	1.05E-01	1.64E-02	2.35E-03	0.2	N	0%	100%
PCBs	Aroclor 1221	06	9	1.10E-02	8.94E-03	5.50E-03	0.2	N	0%	100%
PCBs	Aroclor 1221	08	19	1.15E-02	9.76E-03	5.00E-03	0.2	N	0%	100%
PCBs	Aroclor 1221	09	20	1.15E-01	1.57E-02	6.00E-03	0.2	N	0%	100%
PCBs	Aroclor 1221	10	22	1.30E-02	8.63E-03	2.45E-03	0.2	N	0%	100%
PCBs	Aroclor 1221	11	31	5.50E-02	1.22E-02	5.00E-03	0.2	N	0%	100%
PCBs	Aroclor 1221	12	18	1.10E-02	7.83E-03	6.00E-03	0.2	N	0%	100%
PCBs	Aroclor 1232	01	28	2.20E-01	1.79E-02	6.50E-03	0.17	Y	4%	100%
PCBs	Aroclor 1232	02	47	2.10E-01	1.69E-02	8.50E-03	0.17	Y	2%	100%
PCBs	Aroclor 1232	03	1	1.05E-02	1.05E-02	1.05E-02	0.17	N	0%	100%
PCBs	Aroclor 1232	04	14	1.05E-02	8.46E-03	6.00E-03	0.17	N	0%	100%
PCBs	Aroclor 1232	05	18	1.05E-01	1.73E-02	3.10E-03	0.17	N	0%	100%
PCBs	Aroclor 1232	06	9	1.10E-02	9.83E-03	6.00E-03	0.17	N	0%	100%
PCBs	Aroclor 1232	08	19	1.15E-02	1.04E-02	9.50E-03	0.17	N	0%	100%
PCBs	Aroclor 1232	09	20	1.15E-01	1.57E-02	6.00E-03	0.17	N	0%	100%
PCBs	Aroclor 1232	10	22	1.30E-02	9.06E-03	3.25E-03	0.17	N	0%	100%
PCBs	Aroclor 1232	11	31	5.50E-02	1.26E-02	6.00E-03	0.17	N	0%	100%
PCBs	Aroclor 1232	12	18	1.10E-02	7.83E-03	6.00E-03	0.17	N	0%	100%
PCBs	Aroclor 1242	01	28	2.20E-01	1.78E-02	4.95E-03	0.23	N	0%	100%
PCBs	Aroclor 1242	02	47	2.10E-01	1.61E-02	4.95E-03	0.23	N	0%	100%
PCBs	Aroclor 1242	03	1	1.05E-02	1.05E-02	1.05E-02	0.23	N	0%	100%
PCBs	Aroclor 1242	04	14	1.05E-02	6.19E-03	4.95E-03	0.23	N	0%	100%
PCBs	Aroclor 1242	05	18	1.05E-01	1.92E-02	4.95E-03	0.23	N	0%	94%
PCBs	Aroclor 1242	06	9	1.10E-02	8.82E-03	4.95E-03	0.23	N	0%	100%
PCBs	Aroclor 1242	08	19	1.15E-02	9.70E-03	4.95E-03	0.23	N	0%	100%
PCBs	Aroclor 1242	09	20	1.15E-01	1.57E-02	6.00E-03	0.23	N	0%	100%
PCBs	Aroclor 1242	10	22	1.30E-02	8.88E-03	4.95E-03	0.23	N	0%	100%
PCBs	Aroclor 1242	11	31	5.50E-02	1.22E-02	4.95E-03	0.23	N	0%	100%
PCBs	Aroclor 1242	12	18	1.10E-02	7.83E-03	6.00E-03	0.23	N	0%	100%
PCBs	Aroclor 1248	01	28	2.20E-01	1.79E-02	6.50E-03	0.23	N	0%	100%
PCBs	Aroclor 1248	02	47	2.10E-01	1.64E-02	6.50E-03	0.23	N	0%	100%
PCBs	Aroclor 1248	03	1	1.05E-02	1.05E-02	1.05E-02	0.23	N	0%	100%
PCBs	Aroclor 1248	04	14	3.40E-02	9.07E-03	6.00E-03	0.23	N	0%	100%
PCBs	Aroclor 1248	05	18	1.05E-01	1.68E-02	5.00E-03	0.23	N	0%	100%
PCBs	Aroclor 1248	06	9	1.10E-02	9.28E-03	6.00E-03	0.23	N	0%	100%
PCBs	Aroclor 1248	08	19	3.90E-01	3.01E-02	6.50E-03	0.23	Y	5%	95%
PCBs	Aroclor 1248	09	20	1.15E-01	1.57E-02	6.00E-03	0.23	N	0%	100%
PCBs	Aroclor 1248	10	22	1.30E-02	8.91E-03	5.50E-03	0.23	N	0%	100%
PCBs	Aroclor 1248	11	31	5.50E-02	1.23E-02	6.00E-03	0.23	N	0%	100%
PCBs	Aroclor 1248	12	18	1.10E-02	7.83E-03	6.00E-03	0.23	N	0%	100%
PCBs	Aroclor 1254	01	28	2.20E-01	1.79E-02	6.50E-03	0.12	Y	4%	100%
PCBs	Aroclor 1254	02	47	2.10E-01	1.64E-02	7.00E-03	0.12	Y	2%	100%
PCBs	Aroclor 1254	03	1	1.05E-02	1.05E-02	1.05E-02	0.12	N	0%	100%
PCBs	Aroclor 1254	04	14	5.60E+00	4.21E-01	6.00E-03	0.12	Y	14%	71%
PCBs	Aroclor 1254	05	18	1.05E-01	1.84E-02	7.00E-03	0.12	N	0%	94%
PCBs	Aroclor 1254	06	9	4.20E-02	1.32E-02	6.00E-03	0.12	N	0%	89%
PCBs	Aroclor 1254	08	19	9.50E-02	1.72E-02	7.00E-03	0.12	N	0%	89%
PCBs	Aroclor 1254	09	20	1.15E-01	1.57E-02	6.00E-03	0.12	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
PCBs	Aroclor 1254	10	22	1.30E-02	9.07E-03	6.00E-03	0.12	N	0%	100%
PCBs	Aroclor 1254	11	31	5.50E-02	1.24E-02	6.00E-03	0.12	N	0%	100%
PCBs	Aroclor 1254	12	18	1.10E-02	7.83E-03	6.00E-03	0.12	N	0%	100%
PCBs	Aroclor 1260	01	28	1.45E-02	1.50E-03	6.50E-04	0.24	N	0%	100%
PCBs	Aroclor 1260	02	47	1.60E-01	5.35E-03	7.00E-04	0.24	N	0%	98%
PCBs	Aroclor 1260	03	1	7.00E-04	7.00E-04	7.00E-04	0.24	N	0%	100%
PCBs	Aroclor 1260	04	14	1.70E-02	5.67E-03	7.00E-04	0.24	N	0%	100%
PCBs	Aroclor 1260	05	18	7.00E-03	2.18E-03	7.00E-04	0.24	N	0%	100%
PCBs	Aroclor 1260	06	9	6.00E-03	1.88E-03	6.50E-04	0.24	N	0%	100%
PCBs	Aroclor 1260	08	19	8.90E-03	1.61E-03	7.00E-04	0.24	N	0%	95%
PCBs	Aroclor 1260	09	20	7.50E-03	1.59E-03	7.00E-04	0.24	N	0%	100%
PCBs	Aroclor 1260	10	22	1.30E-02	3.25E-03	7.00E-04	0.24	N	0%	100%
PCBs	Aroclor 1260	11	31	2.40E-02	4.10E-03	7.00E-04	0.24	N	0%	97%
PCBs	Aroclor 1260	12	18	1.30E-02	4.69E-03	7.00E-04	0.24	N	0%	89%
Pesticides	2,4,5-TP (Silvex)	01	27	1.00E-02	3.92E-03	3.45E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	02	45	2.00E-02	5.57E-03	3.45E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	03	1	3.66E-03	3.66E-03	3.66E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	04	12	3.60E-02	1.55E-02	3.60E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	05	18	2.00E-02	7.27E-03	3.56E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	06	9	2.00E-02	6.17E-03	3.56E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	08	19	2.00E-02	6.25E-03	3.60E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	09	20	2.00E-02	4.30E-03	3.59E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	10	21	2.00E-02	5.53E-03	3.61E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	11	30	2.00E-02	6.34E-03	3.56E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	12	17	5.75E-03	3.83E-03	3.60E-03	51	N	0%	100%
Pesticides	4,4'-DDD	01	28	2.05E-02	1.80E-03	6.00E-04	2.3	N	0%	93%
Pesticides	4,4'-DDD	02	51	1.60E-01	8.47E-03	6.00E-04	2.3	N	0%	89%
Pesticides	4,4'-DDD	03	1	1.00E-03	1.00E-03	1.00E-03	2.3	N	0%	100%
Pesticides	4,4'-DDD	04	19	7.30E-03	1.38E-03	9.00E-05	2.3	N	0%	83%
Pesticides	4,4'-DDD	05	19	9.50E-03	1.36E-03	1.55E-04	2.3	N	0%	94%
Pesticides	4,4'-DDD	06	10	1.00E-03	7.99E-04	9.00E-05	2.3	N	0%	100%
Pesticides	4,4'-DDD	08	21	1.70E-03	8.83E-04	1.60E-04	2.3	N	0%	95%
Pesticides	4,4'-DDD	09	22	1.70E-01	2.01E-02	9.00E-05	2.3	N	0%	77%
Pesticides	4,4'-DDD	10	23	1.05E-03	6.62E-04	9.00E-05	2.3	N	0%	100%
Pesticides	4,4'-DDD	11	32	1.20E-01	6.25E-03	9.00E-05	2.3	N	0%	77%
Pesticides	4,4'-DDD	12	17	1.05E-03	4.68E-04	9.00E-05	2.3	N	0%	100%
Pesticides	4,4'-DDE	01	28	7.00E-03	1.02E-03	3.40E-04	2	N	0%	85%
Pesticides	4,4'-DDE	02	51	3.00E-01	1.03E-02	3.35E-04	2	N	0%	70%
Pesticides	4,4'-DDE	03	1	3.45E-04	3.45E-04	3.45E-04	2	N	0%	100%
Pesticides	4,4'-DDE	04	19	3.60E-02	4.30E-03	6.50E-05	2	N	0%	75%
Pesticides	4,4'-DDE	05	19	3.35E-03	7.04E-04	1.05E-04	2	N	0%	83%
Pesticides	4,4'-DDE	06	10	5.00E-03	8.46E-04	6.50E-05	2	N	0%	89%
Pesticides	4,4'-DDE	08	21	1.00E-03	4.39E-04	1.05E-04	2	N	0%	95%
Pesticides	4,4'-DDE	09	22	2.50E-01	2.36E-02	6.50E-05	2	N	0%	68%
Pesticides	4,4'-DDE	10	23	1.10E-03	3.66E-04	6.50E-05	2	N	0%	95%
Pesticides	4,4'-DDE	11	32	1.80E-01	9.28E-03	6.50E-05	2	N	0%	67%
Pesticides	4,4'-DDE	12	17	2.60E-03	3.14E-04	6.50E-05	2	N	0%	94%
Pesticides	4,4'-DDT	01	28	1.70E-01	9.04E-03	9.50E-04	1.9	N	0%	81%
Pesticides	4,4'-DDT	02	51	3.00E+00	9.26E-02	4.40E-04	1.9	Y	2%	53%
Pesticides	4,4'-DDT	03	1	1.00E-03	1.00E-03	1.00E-03	1.9	N	0%	100%
Pesticides	4,4'-DDT	04	19	3.70E-02	5.66E-03	5.00E-05	1.9	N	0%	50%
Pesticides	4,4'-DDT	05	19	9.70E-03	2.08E-03	2.15E-04	1.9	N	0%	83%
Pesticides	4,4'-DDT	06	10	9.30E-03	1.65E-03	5.00E-05	1.9	N	0%	89%
Pesticides	4,4'-DDT	08	21	1.90E-02	1.82E-03	2.10E-04	1.9	N	0%	84%
Pesticides	4,4'-DDT	09	22	2.00E+00	1.74E-01	5.00E-05	1.9	Y	5%	55%
Pesticides	4,4'-DDT	10	23	6.30E-03	1.18E-03	5.00E-05	1.9	N	0%	86%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Pesticides	4,4'-DDT	11	32	1.50E+00	6.37E-02	5.00E-05	1.9	N	0%	53%
Pesticides	4,4'-DDT	12	17	1.20E-02	1.13E-03	5.00E-05	1.9	N	0%	88%
Pesticides	Aldrin	01	28	2.20E-03	1.96E-04	1.05E-04	0.039	N	0%	100%
Pesticides	Aldrin	02	51	2.15E-03	2.41E-04	1.05E-04	0.039	N	0%	98%
Pesticides	Aldrin	03	1	1.10E-04	1.10E-04	1.10E-04	0.039	N	0%	100%
Pesticides	Aldrin	04	19	5.50E-04	3.04E-04	1.10E-04	0.039	N	0%	100%
Pesticides	Aldrin	05	19	1.05E-03	2.20E-04	1.05E-04	0.039	N	0%	100%
Pesticides	Aldrin	06	10	3.80E-04	1.68E-04	1.05E-04	0.039	N	0%	100%
Pesticides	Aldrin	08	21	3.80E-04	1.54E-04	1.05E-04	0.039	N	0%	100%
Pesticides	Aldrin	09	22	1.55E-02	9.64E-04	1.05E-04	0.039	N	0%	95%
Pesticides	Aldrin	10	23	3.80E-04	1.35E-04	1.05E-04	0.039	N	0%	100%
Pesticides	Aldrin	11	32	1.10E-03	2.10E-04	1.05E-04	0.039	N	0%	100%
Pesticides	Aldrin	12	17	1.10E-04	1.09E-04	1.05E-04	0.039	N	0%	100%
Pesticides	alpha Endosulfan (Endosulfan I)	01	28	6.00E-03	5.20E-04	2.85E-04	47	N	0%	100%
Pesticides	alpha Endosulfan (Endosulfan I)	02	51	6.00E-03	5.85E-04	2.85E-04	47	N	0%	100%
Pesticides	alpha Endosulfan (Endosulfan I)	03	1	2.90E-04	2.90E-04	2.90E-04	47	N	0%	100%
Pesticides	alpha Endosulfan (Endosulfan I)	04	19	7.00E-04	5.19E-04	1.30E-04	47	N	0%	100%
Pesticides	alpha Endosulfan (Endosulfan I)	05	19	2.85E-03	4.93E-04	1.05E-04	47	N	0%	100%
Pesticides	alpha Endosulfan (Endosulfan I)	06	10	7.00E-04	3.63E-04	1.30E-04	47	N	0%	100%
Pesticides	alpha Endosulfan (Endosulfan I)	08	21	7.00E-04	3.27E-04	1.05E-04	47	N	0%	100%
Pesticides	alpha Endosulfan (Endosulfan I)	09	22	7.00E-03	8.96E-04	1.30E-04	47	N	0%	95%
Pesticides	alpha Endosulfan (Endosulfan I)	10	23	7.00E-04	2.77E-04	1.10E-04	47	N	0%	100%
Pesticides	alpha Endosulfan (Endosulfan I)	11	32	1.45E-03	4.14E-04	1.30E-04	47	N	0%	100%
Pesticides	alpha Endosulfan (Endosulfan I)	12	17	3.05E-04	1.98E-04	1.30E-04	47	N	0%	100%
Pesticides	beta Endosulfan (Endosulfan II)	01	28	8.50E-03	7.22E-04	3.95E-04	47	N	0%	100%
Pesticides	beta Endosulfan (Endosulfan II)	02	51	1.20E-02	1.08E-03	4.00E-04	47	N	0%	95%
Pesticides	beta Endosulfan (Endosulfan II)	03	1	4.05E-04	4.05E-04	4.05E-04	47	N	0%	100%
Pesticides	beta Endosulfan (Endosulfan II)	04	19	8.00E-04	5.79E-04	1.65E-04	47	N	0%	100%
Pesticides	beta Endosulfan (Endosulfan II)	05	19	4.00E-03	6.40E-04	1.55E-04	47	N	0%	100%
Pesticides	beta Endosulfan (Endosulfan II)	06	10	7.50E-04	4.54E-04	1.65E-04	47	N	0%	100%
Pesticides	beta Endosulfan (Endosulfan II)	08	21	7.50E-04	4.23E-04	1.60E-04	47	N	0%	100%
Pesticides	beta Endosulfan (Endosulfan II)	09	22	4.40E-03	7.64E-04	1.65E-04	47	N	0%	100%
Pesticides	beta Endosulfan (Endosulfan II)	10	23	7.50E-04	3.87E-04	1.65E-04	47	N	0%	95%
Pesticides	beta Endosulfan (Endosulfan II)	11	32	1.20E-02	8.90E-04	1.65E-04	47	N	0%	97%
Pesticides	beta Endosulfan (Endosulfan II)	12	17	4.25E-04	2.66E-04	1.65E-04	47	N	0%	100%
Pesticides	BHC, alpha	01	28	4.10E-03	3.26E-04	9.00E-05	0.086	N	0%	96%
Pesticides	BHC, alpha	02	51	1.80E-02	6.59E-04	9.00E-05	0.086	N	0%	82%
Pesticides	BHC, alpha	03	1	9.50E-05	9.50E-05	9.50E-05	0.086	N	0%	100%
Pesticides	BHC, alpha	04	19	3.00E-03	5.54E-04	9.50E-05	0.086	N	0%	92%
Pesticides	BHC, alpha	05	19	9.00E-04	2.55E-04	9.00E-05	0.086	N	0%	94%
Pesticides	BHC, alpha	06	10	4.65E-04	1.76E-04	9.00E-05	0.086	N	0%	100%
Pesticides	BHC, alpha	08	21	4.65E-04	1.80E-04	9.00E-05	0.086	N	0%	100%
Pesticides	BHC, alpha	09	22	1.60E-02	1.92E-03	9.00E-05	0.086	N	0%	65%
Pesticides	BHC, alpha	10	23	4.65E-04	1.40E-04	9.00E-05	0.086	N	0%	100%
Pesticides	BHC, alpha	11	32	2.50E-02	1.39E-03	9.00E-05	0.086	N	0%	90%
Pesticides	BHC, alpha	12	17	3.90E-03	3.36E-04	9.50E-05	0.086	N	0%	88%
Pesticides	BHC, beta	01	28	3.00E-03	2.59E-04	1.40E-04	0.3	N	0%	100%
Pesticides	BHC, beta	02	51	2.90E-03	3.34E-04	1.45E-04	0.3	N	0%	95%
Pesticides	BHC, beta	03	1	1.45E-04	1.45E-04	1.45E-04	0.3	N	0%	100%
Pesticides	BHC, beta	04	19	3.00E-03	4.68E-04	7.50E-05	0.3	N	0%	92%
Pesticides	BHC, beta	05	19	1.45E-03	2.68E-04	1.45E-04	0.3	N	0%	100%
Pesticides	BHC, beta	06	10	4.30E-04	2.07E-04	7.50E-05	0.3	N	0%	89%
Pesticides	BHC, beta	08	21	6.00E-03	4.65E-04	1.45E-04	0.3	N	0%	95%
Pesticides	BHC, beta	09	22	1.10E-02	1.51E-03	7.50E-05	0.3	N	0%	75%
Pesticides	BHC, beta	10	23	5.30E-04	1.61E-04	7.50E-05	0.3	N	0%	95%
Pesticides	BHC, beta	11	32	5.40E-03	4.48E-04	7.50E-05	0.3	N	0%	93%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Pesticides	BHC, beta	12	17	1.50E-04	1.05E-04	7.50E-05	0.3	N	0%	100%
Pesticides	BHC, delta	01	28	3.20E-03	2.75E-04	1.50E-04	0.57	N	0%	100%
Pesticides	BHC, delta	02	51	7.70E-03	5.13E-04	1.55E-04	0.57	N	0%	93%
Pesticides	BHC, delta	03	1	1.55E-04	1.55E-04	1.55E-04	0.57	N	0%	100%
Pesticides	BHC, delta	04	19	3.20E-04	2.36E-04	5.50E-05	0.57	N	0%	100%
Pesticides	BHC, delta	05	19	1.50E-03	3.02E-04	1.50E-04	0.57	N	0%	94%
Pesticides	BHC, delta	06	10	3.20E-04	1.80E-04	5.50E-05	0.57	N	0%	100%
Pesticides	BHC, delta	08	21	3.25E-04	2.07E-04	1.55E-04	0.57	N	0%	100%
Pesticides	BHC, delta	09	22	3.50E-03	7.33E-04	5.50E-05	0.57	N	0%	75%
Pesticides	BHC, delta	10	23	6.90E-04	1.69E-04	5.50E-05	0.57	N	0%	95%
Pesticides	BHC, delta	11	32	8.00E-04	2.20E-04	5.50E-05	0.57	N	0%	97%
Pesticides	BHC, delta	12	17	1.60E-04	9.68E-05	5.50E-05	0.57	N	0%	100%
Pesticides	BHC, gamma (Lindane)	01	28	2.15E-03	1.89E-04	1.00E-04	0.57	N	0%	100%
Pesticides	BHC, gamma (Lindane)	02	51	2.05E-03	2.23E-04	1.00E-04	0.57	N	0%	98%
Pesticides	BHC, gamma (Lindane)	03	1	1.05E-04	1.05E-04	1.05E-04	0.57	N	0%	100%
Pesticides	BHC, gamma (Lindane)	04	18	3.15E-04	2.29E-04	7.00E-05	0.57	N	0%	100%
Pesticides	BHC, gamma (Lindane)	05	19	2.60E-03	3.39E-04	1.00E-04	0.57	N	0%	94%
Pesticides	BHC, gamma (Lindane)	06	10	3.15E-04	1.47E-04	7.00E-05	0.57	N	0%	100%
Pesticides	BHC, gamma (Lindane)	08	21	3.15E-04	1.48E-04	1.05E-04	0.57	N	0%	95%
Pesticides	BHC, gamma (Lindane)	09	22	7.50E-03	1.03E-03	7.00E-05	0.57	N	0%	75%
Pesticides	BHC, gamma (Lindane)	10	23	3.15E-04	1.15E-04	7.00E-05	0.57	N	0%	100%
Pesticides	BHC, gamma (Lindane)	11	32	2.20E-03	2.29E-04	7.00E-05	0.57	N	0%	97%
Pesticides	BHC, gamma (Lindane)	12	17	1.10E-04	8.47E-05	7.00E-05	0.57	N	0%	100%
Pesticides	Chlordane, alpha	01	28	1.10E-02	9.26E-04	3.60E-04	1.7	N	0%	100%
Pesticides	Chlordane, alpha	02	51	3.30E-02	1.56E-03	3.60E-04	1.7	N	0%	98%
Pesticides	Chlordane, alpha	03	1	5.50E-04	5.50E-04	5.50E-04	1.7	N	0%	100%
Pesticides	Chlordane, alpha	04	19	7.00E-04	3.48E-04	1.35E-04	1.7	N	0%	100%
Pesticides	Chlordane, alpha	05	19	5.00E-03	6.70E-04	1.05E-04	1.7	N	0%	100%
Pesticides	Chlordane, alpha	06	10	5.50E-04	4.45E-04	1.35E-04	1.7	N	0%	100%
Pesticides	Chlordane, alpha	08	21	5.50E-04	4.63E-04	1.05E-04	1.7	N	0%	95%
Pesticides	Chlordane, alpha	09	22	2.05E-02	1.90E-03	1.35E-04	1.7	N	0%	100%
Pesticides	Chlordane, alpha	10	23	5.50E-04	3.90E-04	1.10E-04	1.7	N	0%	100%
Pesticides	Chlordane, alpha	11	32	2.65E-03	5.99E-04	1.35E-04	1.7	N	0%	100%
Pesticides	Chlordane, alpha	12	17	5.50E-04	3.06E-04	1.35E-04	1.7	N	0%	100%
Pesticides	Chlordane, gamma	01	28	1.10E-02	9.28E-04	3.95E-04	1.7	N	0%	100%
Pesticides	Chlordane, gamma	02	51	1.05E-02	8.96E-04	3.95E-04	1.7	N	0%	100%
Pesticides	Chlordane, gamma	03	1	5.50E-04	5.50E-04	5.50E-04	1.7	N	0%	100%
Pesticides	Chlordane, gamma	04	19	7.50E-04	3.76E-04	1.50E-04	1.7	N	0%	100%
Pesticides	Chlordane, gamma	05	19	5.00E-03	6.89E-04	1.55E-04	1.7	N	0%	100%
Pesticides	Chlordane, gamma	06	10	5.50E-04	4.54E-04	1.50E-04	1.7	N	0%	100%
Pesticides	Chlordane, gamma	08	21	5.50E-04	4.74E-04	1.60E-04	1.7	N	0%	100%
Pesticides	Chlordane, gamma	09	22	1.55E-02	1.70E-03	1.50E-04	1.7	N	0%	95%
Pesticides	Chlordane, gamma	10	23	5.50E-04	4.00E-04	1.50E-04	1.7	N	0%	100%
Pesticides	Chlordane, gamma	11	32	2.65E-03	6.13E-04	1.50E-04	1.7	N	0%	100%
Pesticides	Chlordane, gamma	12	17	5.50E-04	3.15E-04	1.50E-04	1.7	N	0%	100%
Pesticides	Dieldrin	01	28	6.50E-03	5.62E-04	3.15E-04	0.034	N	0%	100%
Pesticides	Dieldrin	02	51	2.20E-02	1.13E-03	3.20E-04	0.034	N	0%	91%
Pesticides	Dieldrin	03	1	3.25E-04	3.25E-04	3.25E-04	0.034	N	0%	100%
Pesticides	Dieldrin	04	19	4.80E-04	3.67E-04	9.00E-05	0.034	N	0%	100%
Pesticides	Dieldrin	05	19	3.20E-03	4.91E-04	1.55E-04	0.034	N	0%	100%
Pesticides	Dieldrin	06	10	4.80E-04	3.32E-04	9.00E-05	0.034	N	0%	100%
Pesticides	Dieldrin	08	21	4.80E-04	3.24E-04	1.60E-04	0.034	N	0%	100%
Pesticides	Dieldrin	09	22	1.55E-02	1.29E-03	9.00E-05	0.034	N	0%	100%
Pesticides	Dieldrin	10	23	4.80E-04	2.66E-04	9.00E-05	0.034	N	0%	100%
Pesticides	Dieldrin	11	32	1.70E-02	9.52E-04	9.00E-05	0.034	N	0%	93%
Pesticides	Dieldrin	12	17	3.40E-04	1.88E-04	9.00E-05	0.034	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Pesticides	Dinoseb (DNBP)	01	19	5.00E-02	9.83E-03	7.00E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	02	36	1.00E-01	1.37E-02	7.00E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	03	1	7.40E-03	7.40E-03	7.40E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	04	12	1.00E-01	5.65E-02	7.30E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	05	18	1.00E-01	2.80E-02	7.20E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	06	8	1.00E-01	2.43E-02	7.20E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	08	13	1.00E-01	2.89E-02	7.35E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	09	17	1.13E-02	7.92E-03	7.30E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	10	21	1.00E-01	1.69E-02	7.30E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	11	30	1.00E-01	1.88E-02	7.20E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	12	17	1.17E-02	7.79E-03	7.30E-03	6.3	N	0%	100%
Pesticides	Endosulfan sulfate	01	28	2.55E-02	2.13E-03	6.00E-04	47	N	0%	100%
Pesticides	Endosulfan sulfate	02	51	2.50E-02	2.07E-03	6.00E-04	47	N	0%	100%
Pesticides	Endosulfan sulfate	03	1	1.25E-03	1.25E-03	1.25E-03	47	N	0%	100%
Pesticides	Endosulfan sulfate	04	19	8.20E-03	1.19E-03	2.15E-04	47	N	0%	92%
Pesticides	Endosulfan sulfate	05	19	1.20E-02	1.52E-03	1.55E-04	47	N	0%	100%
Pesticides	Endosulfan sulfate	06	10	1.25E-03	9.79E-04	2.15E-04	47	N	0%	100%
Pesticides	Endosulfan sulfate	08	21	1.35E-03	1.01E-03	1.60E-04	47	N	0%	95%
Pesticides	Endosulfan sulfate	09	22	2.05E-02	3.11E-03	2.15E-04	47	N	0%	100%
Pesticides	Endosulfan sulfate	10	23	1.30E-03	8.43E-04	1.65E-04	47	N	0%	100%
Pesticides	Endosulfan sulfate	11	32	6.00E-03	1.28E-03	2.15E-04	47	N	0%	100%
Pesticides	Endosulfan sulfate	12	17	1.30E-03	6.44E-04	2.15E-04	47	N	0%	100%
Pesticides	Endrin	01	28	2.70E-02	1.35E-03	3.45E-04	1.9	N	0%	96%
Pesticides	Endrin	02	51	7.00E-03	7.43E-04	3.45E-04	1.9	N	0%	95%
Pesticides	Endrin	03	1	3.50E-04	3.50E-04	3.50E-04	1.9	N	0%	100%
Pesticides	Endrin	04	19	4.80E-03	7.18E-04	9.00E-05	1.9	N	0%	92%
Pesticides	Endrin	05	19	3.45E-03	5.23E-04	2.05E-04	1.9	N	0%	100%
Pesticides	Endrin	06	10	4.55E-04	3.46E-04	9.00E-05	1.9	N	0%	100%
Pesticides	Endrin	08	21	4.55E-04	3.47E-04	2.10E-04	1.9	N	0%	100%
Pesticides	Endrin	09	22	1.55E-02	1.42E-03	9.00E-05	1.9	N	0%	95%
Pesticides	Endrin	10	23	4.55E-04	2.82E-04	9.00E-05	1.9	N	0%	100%
Pesticides	Endrin	11	32	1.75E-03	4.15E-04	9.00E-05	1.9	N	0%	100%
Pesticides	Endrin	12	17	3.65E-04	1.99E-04	9.00E-05	1.9	N	0%	100%
Pesticides	Endrin aldehyde	01	28	2.60E-02	2.17E-03	8.50E-04	1.9	N	0%	100%
Pesticides	Endrin aldehyde	02	51	2.50E-02	2.46E-03	8.50E-04	1.9	N	0%	98%
Pesticides	Endrin aldehyde	03	1	1.25E-03	1.25E-03	1.25E-03	1.9	N	0%	100%
Pesticides	Endrin aldehyde	04	19	2.90E-02	3.09E-03	2.95E-04	1.9	N	0%	92%
Pesticides	Endrin aldehyde	05	18	1.30E-03	9.94E-04	2.65E-04	1.9	N	0%	100%
Pesticides	Endrin aldehyde	06	10	1.30E-03	1.06E-03	2.95E-04	1.9	N	0%	100%
Pesticides	Endrin aldehyde	08	21	1.35E-03	1.08E-03	2.65E-04	1.9	N	0%	95%
Pesticides	Endrin aldehyde	09	19	1.55E-02	3.21E-03	7.50E-04	1.9	N	0%	100%
Pesticides	Endrin aldehyde	10	23	1.30E-03	9.03E-04	2.85E-04	1.9	N	0%	100%
Pesticides	Endrin aldehyde	11	32	6.50E-03	1.40E-03	2.95E-04	1.9	N	0%	100%
Pesticides	Endrin aldehyde	12	17	1.30E-03	6.94E-04	2.95E-04	1.9	N	0%	100%
Pesticides	Endrin ketone	01	28	2.65E-02	2.21E-03	7.50E-04	1.9	N	0%	100%
Pesticides	Endrin ketone	02	51	2.55E-02	2.37E-03	7.50E-04	1.9	N	0%	98%
Pesticides	Endrin ketone	03	1	1.30E-03	1.30E-03	1.30E-03	1.9	N	0%	100%
Pesticides	Endrin ketone	04	19	1.30E-03	6.91E-04	2.15E-04	1.9	N	0%	100%
Pesticides	Endrin ketone	05	19	1.25E-02	1.60E-03	1.55E-04	1.9	N	0%	100%
Pesticides	Endrin ketone	06	10	1.30E-03	1.04E-03	2.15E-04	1.9	N	0%	100%
Pesticides	Endrin ketone	08	21	3.30E-03	1.20E-03	1.60E-04	1.9	N	0%	95%
Pesticides	Endrin ketone	09	22	2.05E-02	3.16E-03	2.15E-04	1.9	N	0%	100%
Pesticides	Endrin ketone	10	23	1.35E-03	8.84E-04	1.65E-04	1.9	N	0%	100%
Pesticides	Endrin ketone	11	32	6.50E-03	1.36E-03	2.15E-04	1.9	N	0%	100%
Pesticides	Endrin ketone	12	17	1.35E-03	6.65E-04	2.15E-04	1.9	N	0%	100%
Pesticides	Heptachlor	01	28	3.80E-03	3.26E-04	1.80E-04	0.13	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Pesticides	Heptachlor	02	51	3.65E-03	3.69E-04	1.80E-04	0.13	N	0%	98%
Pesticides	Heptachlor	03	1	1.85E-04	1.85E-04	1.85E-04	0.13	N	0%	100%
Pesticides	Heptachlor	04	19	1.10E-02	1.02E-03	1.40E-04	0.13	N	0%	83%
Pesticides	Heptachlor	05	19	1.80E-03	2.96E-04	1.05E-04	0.13	N	0%	100%
Pesticides	Heptachlor	06	10	3.45E-04	2.14E-04	1.40E-04	0.13	N	0%	100%
Pesticides	Heptachlor	08	21	3.45E-04	1.98E-04	1.05E-04	0.13	N	0%	100%
Pesticides	Heptachlor	09	22	2.05E-02	1.45E-03	1.40E-04	0.13	N	0%	91%
Pesticides	Heptachlor	10	23	3.45E-04	1.84E-04	1.10E-04	0.13	N	0%	100%
Pesticides	Heptachlor	11	32	1.60E-03	3.20E-04	1.40E-04	0.13	N	0%	97%
Pesticides	Heptachlor	12	17	1.90E-04	1.59E-04	1.40E-04	0.13	N	0%	100%
Pesticides	Heptachlor epoxide	01	28	1.20E-02	5.90E-04	1.35E-04	0.07	N	0%	96%
Pesticides	Heptachlor epoxide	02	51	6.60E-03	3.88E-04	1.35E-04	0.07	N	0%	98%
Pesticides	Heptachlor epoxide	03	1	1.35E-04	1.35E-04	1.35E-04	0.07	N	0%	100%
Pesticides	Heptachlor epoxide	04	19	2.70E-03	5.29E-04	5.00E-05	0.07	N	0%	92%
Pesticides	Heptachlor epoxide	05	19	1.35E-03	3.31E-04	1.05E-04	0.07	N	0%	83%
Pesticides	Heptachlor epoxide	06	10	4.80E-04	2.03E-04	5.00E-05	0.07	N	0%	100%
Pesticides	Heptachlor epoxide	08	21	2.30E-03	3.10E-04	1.05E-04	0.07	N	0%	95%
Pesticides	Heptachlor epoxide	09	22	2.05E-02	1.25E-03	5.00E-05	0.07	N	0%	91%
Pesticides	Heptachlor epoxide	10	23	7.10E-04	1.73E-04	5.00E-05	0.07	N	0%	95%
Pesticides	Heptachlor epoxide	11	32	1.70E-03	2.71E-04	5.00E-05	0.07	N	0%	90%
Pesticides	Heptachlor epoxide	12	17	1.40E-04	8.62E-05	5.00E-05	0.07	N	0%	100%
Pesticides	Methoxychlor	01	28	5.80E-02	3.06E-03	7.50E-04	32	N	0%	89%
Pesticides	Methoxychlor	02	51	1.40E-01	4.03E-03	7.50E-04	32	N	0%	90%
Pesticides	Methoxychlor	03	1	7.50E-04	7.50E-04	7.50E-04	32	N	0%	100%
Pesticides	Methoxychlor	04	19	3.30E-02	3.39E-03	2.05E-04	32	N	0%	92%
Pesticides	Methoxychlor	05	19	7.50E-03	1.15E-03	2.15E-04	32	N	0%	94%
Pesticides	Methoxychlor	06	10	9.00E-04	7.23E-04	2.05E-04	32	N	0%	100%
Pesticides	Methoxychlor	08	21	1.60E-03	7.64E-04	2.10E-04	32	N	0%	95%
Pesticides	Methoxychlor	09	22	1.55E-02	2.01E-03	2.05E-04	32	N	0%	100%
Pesticides	Methoxychlor	10	23	9.00E-04	5.86E-04	2.05E-04	32	N	0%	100%
Pesticides	Methoxychlor	11	32	3.75E-03	8.89E-04	2.05E-04	32	N	0%	100%
Pesticides	Methoxychlor	12	17	8.00E-04	4.32E-04	2.05E-04	32	N	0%	100%
Pesticides	Toxaphene	01	28	9.00E-01	7.32E-02	6.00E-03	0.49	Y	4%	100%
Pesticides	Toxaphene	02	51	8.50E-01	6.73E-02	6.00E-03	0.49	Y	2%	100%
Pesticides	Toxaphene	03	1	4.25E-02	4.25E-02	4.25E-02	0.49	N	0%	100%
Pesticides	Toxaphene	04	19	5.00E-02	1.38E-02	6.00E-03	0.49	N	0%	100%
Pesticides	Toxaphene	05	19	4.15E-01	5.23E-02	6.00E-03	0.49	N	0%	100%
Pesticides	Toxaphene	06	10	4.35E-02	3.07E-02	6.00E-03	0.49	N	0%	100%
Pesticides	Toxaphene	08	21	4.50E-02	3.43E-02	6.00E-03	0.49	N	0%	100%
Pesticides	Toxaphene	09	22	5.00E-01	9.60E-02	1.05E-02	0.49	Y	5%	100%
Pesticides	Toxaphene	10	23	4.40E-02	2.93E-02	6.00E-03	0.49	N	0%	100%
Pesticides	Toxaphene	11	32	2.10E-01	4.48E-02	6.00E-03	0.49	N	0%	100%
Pesticides	Toxaphene	12	17	4.40E-02	2.38E-02	1.05E-02	0.49	N	0%	100%
Radionuclides	Radium-226[a]	01	19	4.93E+00	1.29E+00	8.43E-01	0.0063	Y	100%	0%
Radionuclides	Radium-226[a]	02	16	3.39E+00	1.47E+00	8.50E-01	0.0063	Y	100%	0%
Radionuclides	Radium-226[a]	03	2	1.67E+00	1.39E+00	1.10E+00	0.0063	Y	100%	0%
Radionuclides	Radium-226[a]	04	27	9.02E+00	2.22E+00	8.00E-01	0.0063	Y	100%	0%
Radionuclides	Radium-226[a]	05	39	8.68E+00	2.12E+00	5.00E-01	0.0063	Y	100%	0%
Radionuclides	Radium-226[a]	06	21	3.11E+00	1.40E+00	7.00E-01	0.0063	Y	100%	0%
Radionuclides	Radium-226[a]	07	4	3.43E+00	2.18E+00	1.23E+00	0.0063	Y	100%	0%
Radionuclides	Radium-226[a]	08	19	5.86E+00	2.13E+00	9.26E-01	0.0063	Y	100%	0%
Radionuclides	Radium-226[a]	09	35	5.70E+00	2.34E+00	9.50E-01	0.0063	Y	100%	0%
Radionuclides	Radium-226[a]	10	26	6.28E+00	1.72E+00	4.92E-01	0.0063	Y	100%	0%
Radionuclides	Radium-226[a]	11	15	2.34E+00	1.37E+00	8.89E-01	0.0063	Y	100%	0%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Radionuclides	Radium-226[a]	12	11	4.80E+00	2.30E+00	1.09E+00	0.0063	Y	100%	0%
Radionuclides	Radium-228[a]	01	19	1.27E+00	9.86E-01	1.16E-01	0.0118	Y	100%	5%
Radionuclides	Radium-228[a]	02	16	2.70E+00	1.06E+00	2.00E-01	0.0118	Y	100%	0%
Radionuclides	Radium-228[a]	03	2	1.50E+00	1.48E+00	1.45E+00	0.0118	Y	100%	0%
Radionuclides	Radium-228[a]	04	27	3.20E+00	1.27E+00	4.00E-01	0.0118	Y	100%	7%
Radionuclides	Radium-228[a]	05	39	8.12E+00	1.52E+00	1.00E-01	0.0118	Y	100%	3%
Radionuclides	Radium-228[a]	06	21	1.90E+00	1.09E+00	4.00E-01	0.0118	Y	100%	14%
Radionuclides	Radium-228[a]	07	4	5.24E+00	2.04E+00	8.95E-01	0.0118	Y	100%	0%
Radionuclides	Radium-228[a]	08	19	8.80E+00	1.89E+00	6.60E-01	0.0118	Y	100%	5%
Radionuclides	Radium-228[a]	09	35	2.44E+01	4.11E+00	5.00E-01	0.0118	Y	100%	14%
Radionuclides	Radium-228[a]	10	26	4.38E+00	1.66E+00	4.14E-01	0.0118	Y	100%	8%
Radionuclides	Radium-228[a]	11	15	2.20E+00	1.28E+00	7.91E-01	0.0118	Y	100%	0%
Radionuclides	Radium-228[a]	12	11	2.30E+00	1.36E+00	5.00E-01	0.0118	Y	100%	18%
Radionuclides	Thorium	01	19	9.02E+00	6.04E+00	3.85E+00	0.423	Y	100%	0%
Radionuclides	Thorium	02	16	1.18E+01	5.90E+00	3.83E+00	0.423	Y	100%	0%
Radionuclides	Thorium	03	2	7.40E+00	6.50E+00	5.60E+00	0.423	Y	100%	0%
Radionuclides	Thorium	04	27	3.91E+01	8.96E+00	4.27E+00	0.423	Y	100%	0%
Radionuclides	Thorium	05	39	5.98E+01	8.22E+00	2.90E+00	0.423	Y	100%	0%
Radionuclides	Thorium	06	21	9.24E+00	5.73E+00	4.04E+00	0.423	Y	100%	0%
Radionuclides	Thorium	07	4	3.34E+01	1.25E+01	4.79E+00	0.423	Y	100%	0%
Radionuclides	Thorium	08	19	2.35E+02	2.28E+01	5.22E+00	0.423	Y	100%	0%
Radionuclides	Thorium	09	35	2.41E+02	3.27E+01	3.62E+00	0.423	Y	100%	0%
Radionuclides	Thorium	10	26	3.39E+01	9.94E+00	3.60E+00	0.423	Y	100%	0%
Radionuclides	Thorium	11	15	1.18E+01	6.10E+00	3.91E+00	0.423	Y	100%	0%
Radionuclides	Thorium	12	11	9.90E+00	6.09E+00	2.40E+00	0.423	Y	100%	0%
Radionuclides	Uranium	01	19	6.72E+00	1.56E+00	6.45E-01	0.143	Y	100%	0%
Radionuclides	Uranium	02	16	6.30E+00	1.97E+00	7.96E-01	0.143	Y	100%	0%
Radionuclides	Uranium	03	2	2.10E+00	1.70E+00	1.30E+00	0.143	Y	100%	0%
Radionuclides	Uranium	04	27	1.10E+01	2.37E+00	8.37E-01	0.143	Y	100%	0%
Radionuclides	Uranium	05	39	1.30E+02	6.56E+00	5.00E-01	0.143	Y	100%	0%
Radionuclides	Uranium	06	21	2.33E+00	1.22E+00	7.62E-01	0.143	Y	100%	0%
Radionuclides	Uranium	07	4	2.87E+01	8.42E+00	1.14E+00	0.143	Y	100%	0%
Radionuclides	Uranium	08	19	1.50E+02	1.08E+01	9.18E-01	0.143	Y	100%	0%
Radionuclides	Uranium	09	35	5.38E+01	1.04E+01	6.42E-01	0.143	Y	100%	0%
Radionuclides	Uranium	10	26	1.06E+01	2.79E+00	3.56E-01	0.143	Y	100%	0%
Radionuclides	Uranium	11	15	7.05E+00	1.97E+00	6.79E-01	0.143	Y	100%	0%
Radionuclides	Uranium	12	11	3.10E+00	1.69E+00	2.50E-01	0.143	Y	100%	9%
SVOC	1,2-Dichlorobenzene	01	73	1.05E+01	1.33E-01	3.70E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	02	102	5.00E+00	1.31E-01	3.55E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	03	3	8.00E-03	2.22E-03	4.05E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	04	26	1.00E+00	1.46E-01	3.95E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	05	39	5.00E-01	6.57E-02	3.20E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	06	26	1.05E-01	2.70E-02	3.75E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	08	41	7.00E-01	6.58E-02	3.60E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	09	47	2.60E+00	1.06E-01	3.75E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	10	54	5.00E-01	4.23E-02	3.60E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	11	64	5.50E+00	1.83E-01	3.20E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	12	33	2.00E-01	2.80E-02	3.35E-05	180	N	0%	100%
SVOC	1,4-Dichlorobenzene	01	97	1.15E+01	1.73E-01	3.65E-05	2.6	Y	2%	100%
SVOC	1,4-Dichlorobenzene	02	119	5.50E+00	1.58E-01	3.50E-05	2.6	Y	3%	100%
SVOC	1,4-Dichlorobenzene	03	4	7.00E-02	1.95E-02	4.00E-05	2.6	N	0%	100%
SVOC	1,4-Dichlorobenzene	04	33	1.40E+00	2.41E-01	3.90E-05	2.6	N	0%	100%
SVOC	1,4-Dichlorobenzene	05	49	1.35E-01	4.62E-02	3.15E-05	2.6	N	0%	100%
SVOC	1,4-Dichlorobenzene	06	36	3.40E-01	3.92E-02	3.70E-05	2.6	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	1,4-Dichlorobenzene	08	44	6.50E-01	4.55E-02	3.55E-05	2.6	N	0%	100%
SVOC	1,4-Dichlorobenzene	09	60	7.00E-01	5.28E-02	3.70E-05	2.6	N	0%	100%
SVOC	1,4-Dichlorobenzene	10	66	5.50E-01	4.00E-02	3.55E-05	2.6	N	0%	100%
SVOC	1,4-Dichlorobenzene	11	74	1.60E+01	2.65E-01	3.15E-05	2.6	Y	2%	100%
SVOC	1,4-Dichlorobenzene	12	36	3.30E-01	1.59E-02	3.30E-05	2.6	N	0%	100%
SVOC	2,4,5-Trichlorophenol	01	51	3.05E+00	1.43E-01	7.00E-03	630	N	0%	100%
SVOC	2,4,5-Trichlorophenol	02	62	1.50E+00	1.28E-01	7.00E-03	630	N	0%	100%
SVOC	2,4,5-Trichlorophenol	03	2	7.00E-02	3.85E-02	7.00E-03	630	N	0%	100%
SVOC	2,4,5-Trichlorophenol	04	18	1.40E+00	2.12E-01	9.50E-03	630	N	0%	100%
SVOC	2,4,5-Trichlorophenol	05	28	9.50E-02	4.69E-02	9.50E-03	630	N	0%	100%
SVOC	2,4,5-Trichlorophenol	06	19	3.35E-01	5.81E-02	9.00E-03	630	N	0%	100%
SVOC	2,4,5-Trichlorophenol	08	22	4.85E-01	5.53E-02	7.00E-03	630	N	0%	100%
SVOC	2,4,5-Trichlorophenol	09	32	7.00E-01	8.68E-02	7.00E-03	630	N	0%	100%
SVOC	2,4,5-Trichlorophenol	10	33	1.50E-01	5.89E-02	7.00E-03	630	N	0%	100%
SVOC	2,4,5-Trichlorophenol	11	39	1.55E+01	4.92E-01	7.00E-03	630	N	0%	100%
SVOC	2,4,5-Trichlorophenol	12	20	6.50E-01	4.61E-02	7.00E-03	630	N	0%	100%
SVOC	2,4,6-Trichlorophenol	01	51	3.05E+00	1.11E-01	4.85E-03	6.3	N	0%	100%
SVOC	2,4,6-Trichlorophenol	02	62	1.50E+00	1.03E-01	4.70E-03	6.3	N	0%	100%
SVOC	2,4,6-Trichlorophenol	03	2	4.05E-02	2.26E-02	4.70E-03	6.3	N	0%	100%
SVOC	2,4,6-Trichlorophenol	04	18	8.00E-01	1.62E-01	1.10E-02	6.3	N	0%	100%
SVOC	2,4,6-Trichlorophenol	05	28	1.05E-01	3.88E-02	1.10E-02	6.3	N	0%	100%
SVOC	2,4,6-Trichlorophenol	06	19	1.90E-01	3.68E-02	1.10E-02	6.3	N	0%	100%
SVOC	2,4,6-Trichlorophenol	08	22	5.50E-01	5.57E-02	4.70E-03	6.3	N	0%	100%
SVOC	2,4,6-Trichlorophenol	09	32	4.00E-01	6.22E-02	4.70E-03	6.3	N	0%	100%
SVOC	2,4,6-Trichlorophenol	10	33	1.60E-01	4.97E-02	4.70E-03	6.3	N	0%	100%
SVOC	2,4,6-Trichlorophenol	11	39	9.00E+00	3.03E-01	4.70E-03	6.3	Y	3%	100%
SVOC	2,4,6-Trichlorophenol	12	20	3.85E-01	2.92E-02	4.70E-03	6.3	N	0%	100%
SVOC	2,4-Dichlorophenol	01	51	2.20E+00	8.74E-02	7.50E-03	19	N	0%	100%
SVOC	2,4-Dichlorophenol	02	62	1.10E+00	8.12E-02	7.50E-03	19	N	0%	100%
SVOC	2,4-Dichlorophenol	03	2	3.65E-02	2.20E-02	7.50E-03	19	N	0%	100%
SVOC	2,4-Dichlorophenol	04	18	7.00E-01	1.41E-01	1.00E-02	19	N	0%	100%
SVOC	2,4-Dichlorophenol	05	28	1.05E-01	3.46E-02	9.50E-03	19	N	0%	100%
SVOC	2,4-Dichlorophenol	06	19	1.70E-01	3.21E-02	9.50E-03	19	N	0%	100%
SVOC	2,4-Dichlorophenol	08	22	5.50E-01	5.20E-02	7.50E-03	19	N	0%	100%
SVOC	2,4-Dichlorophenol	09	32	3.55E-01	5.70E-02	7.50E-03	19	N	0%	100%
SVOC	2,4-Dichlorophenol	10	33	1.60E-01	4.60E-02	7.50E-03	19	N	0%	100%
SVOC	2,4-Dichlorophenol	11	39	8.00E+00	2.70E-01	7.50E-03	19	N	0%	100%
SVOC	2,4-Dichlorophenol	12	20	3.05E-01	2.61E-02	7.50E-03	19	N	0%	100%
SVOC	2,4-Dimethylphenol	01	50	2.35E+00	1.46E-01	1.85E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	02	62	3.85E+00	1.45E-01	1.80E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	03	2	7.00E-02	4.40E-02	1.80E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	04	18	1.40E+00	2.13E-01	2.15E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	05	28	7.50E-01	1.38E-01	2.25E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	06	19	3.35E-01	1.03E-01	2.15E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	08	22	5.50E-01	1.37E-01	1.80E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	09	32	3.95E+00	3.54E-01	1.80E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	10	33	1.60E-01	1.09E-01	1.80E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	11	39	1.55E+01	6.78E-01	1.80E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	12	20	5.00E-01	8.88E-02	1.80E-02	130	N	0%	100%
SVOC	2,4-Dinitrophenol	01	51	3.80E+00	2.29E-01	5.50E-03	13	N	0%	100%
SVOC	2,4-Dinitrophenol	02	61	2.35E+00	2.03E-01	5.00E-03	13	N	0%	100%
SVOC	2,4-Dinitrophenol	03	2	1.80E-01	9.25E-02	5.00E-03	13	N	0%	100%
SVOC	2,4-Dinitrophenol	04	17	3.50E+00	4.08E-01	3.50E-02	13	N	0%	100%
SVOC	2,4-Dinitrophenol	05	28	4.65E-01	1.38E-01	3.65E-02	13	N	0%	100%
SVOC	2,4-Dinitrophenol	06	19	8.50E-01	1.63E-01	3.50E-02	13	N	0%	100%
SVOC	2,4-Dinitrophenol	08	22	3.80E-01	1.12E-01	5.00E-03	13	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	2,4-Dinitrophenol	09	31	2.40E+00	2.80E-01	5.00E-03	13	N	0%	100%
SVOC	2,4-Dinitrophenol	10	33	2.05E-01	1.20E-01	5.00E-03	13	N	0%	100%
SVOC	2,4-Dinitrophenol	11	39	4.00E+01	1.32E+00	5.00E-03	13	Y	3%	100%
SVOC	2,4-Dinitrophenol	12	20	5.50E-01	7.60E-02	5.00E-03	13	N	0%	100%
SVOC	2,4-Dinitrotoluene	01	51	1.95E+00	9.24E-02	1.00E-02	1.7	Y	2%	100%
SVOC	2,4-Dinitrotoluene	02	62	9.50E-01	8.43E-02	1.00E-02	1.7	N	0%	100%
SVOC	2,4-Dinitrotoluene	03	2	4.35E-02	2.68E-02	1.00E-02	1.7	N	0%	100%
SVOC	2,4-Dinitrotoluene	04	19	8.50E-01	1.63E-01	1.30E-02	1.7	N	0%	100%
SVOC	2,4-Dinitrotoluene	05	28	1.10E-01	3.92E-02	1.25E-02	1.7	N	0%	100%
SVOC	2,4-Dinitrotoluene	06	19	2.05E-01	3.77E-02	1.25E-02	1.7	N	0%	100%
SVOC	2,4-Dinitrotoluene	08	22	5.50E-01	5.45E-02	1.00E-02	1.7	N	0%	100%
SVOC	2,4-Dinitrotoluene	09	32	4.25E-01	7.00E-02	1.00E-02	1.7	N	0%	100%
SVOC	2,4-Dinitrotoluene	10	33	1.65E-01	5.08E-02	1.00E-02	1.7	N	0%	100%
SVOC	2,4-Dinitrotoluene	11	40	9.50E+00	3.28E-01	1.00E-02	1.7	Y	3%	100%
SVOC	2,4-Dinitrotoluene	12	20	4.10E-01	3.45E-02	1.00E-02	1.7	N	0%	100%
SVOC	2,6-Dinitrotoluene	01	51	2.85E+00	1.24E-01	7.00E-03	0.36	Y	8%	100%
SVOC	2,6-Dinitrotoluene	02	62	1.40E+00	1.17E-01	6.50E-03	0.36	Y	11%	100%
SVOC	2,6-Dinitrotoluene	03	2	5.00E-02	2.83E-02	6.50E-03	0.36	N	0%	100%
SVOC	2,6-Dinitrotoluene	04	19	1.00E+00	1.94E-01	2.65E-02	0.36	Y	16%	100%
SVOC	2,6-Dinitrotoluene	05	28	2.40E-01	6.67E-02	2.75E-02	0.36	N	0%	100%
SVOC	2,6-Dinitrotoluene	06	19	2.45E-01	5.61E-02	2.65E-02	0.36	N	0%	100%
SVOC	2,6-Dinitrotoluene	08	22	5.50E-01	7.77E-02	6.50E-03	0.36	Y	5%	100%
SVOC	2,6-Dinitrotoluene	09	32	1.25E+00	1.40E-01	6.50E-03	0.36	Y	9%	100%
SVOC	2,6-Dinitrotoluene	10	33	1.65E-01	6.77E-02	6.50E-03	0.36	N	0%	100%
SVOC	2,6-Dinitrotoluene	11	40	1.15E+01	4.78E-01	6.50E-03	0.36	Y	10%	100%
SVOC	2,6-Dinitrotoluene	12	20	4.85E-01	4.76E-02	6.50E-03	0.36	Y	5%	100%
SVOC	2-Chloronaphthalene	01	51	2.60E+00	9.65E-02	5.00E-03	480	N	0%	100%
SVOC	2-Chloronaphthalene	02	62	1.30E+00	8.95E-02	4.95E-03	480	N	0%	100%
SVOC	2-Chloronaphthalene	03	2	3.65E-02	2.07E-02	4.95E-03	480	N	0%	100%
SVOC	2-Chloronaphthalene	04	19	7.00E-01	1.54E-01	1.00E-02	480	N	0%	100%
SVOC	2-Chloronaphthalene	05	28	1.05E-01	3.55E-02	9.50E-03	480	N	0%	100%
SVOC	2-Chloronaphthalene	06	19	1.70E-01	3.27E-02	9.50E-03	480	N	0%	100%
SVOC	2-Chloronaphthalene	08	22	5.50E-01	5.30E-02	4.95E-03	480	N	0%	100%
SVOC	2-Chloronaphthalene	09	32	3.55E-01	5.58E-02	4.95E-03	480	N	0%	100%
SVOC	2-Chloronaphthalene	10	33	1.60E-01	4.68E-02	4.95E-03	480	N	0%	100%
SVOC	2-Chloronaphthalene	11	40	8.00E+00	2.77E-01	4.95E-03	480	N	0%	100%
SVOC	2-Chloronaphthalene	12	20	3.30E-01	2.58E-02	4.95E-03	480	N	0%	100%
SVOC	2-Chlorophenol	01	51	4.15E+00	1.33E-01	8.00E-03	39	N	0%	100%
SVOC	2-Chlorophenol	02	62	2.05E+00	1.25E-01	8.00E-03	39	N	0%	100%
SVOC	2-Chlorophenol	03	2	3.80E-02	2.30E-02	8.00E-03	39	N	0%	100%
SVOC	2-Chlorophenol	04	18	7.50E-01	1.82E-01	1.55E-02	39	N	0%	100%
SVOC	2-Chlorophenol	05	28	1.25E-01	4.46E-02	1.50E-02	39	N	0%	100%
SVOC	2-Chlorophenol	06	19	1.80E-01	3.80E-02	1.50E-02	39	N	0%	100%
SVOC	2-Chlorophenol	08	22	6.00E-01	6.47E-02	8.00E-03	39	N	0%	100%
SVOC	2-Chlorophenol	09	32	3.90E-01	6.89E-02	8.00E-03	39	N	0%	100%
SVOC	2-Chlorophenol	10	33	2.00E-01	5.55E-02	8.00E-03	39	N	0%	100%
SVOC	2-Chlorophenol	11	39	8.50E+00	2.99E-01	8.00E-03	39	N	0%	100%
SVOC	2-Chlorophenol	12	20	3.60E-01	3.10E-02	8.00E-03	39	N	0%	100%
SVOC	2-Methylnaphthalene	01	51	1.85E+00	8.94E-02	5.50E-03	24	N	0%	98%
SVOC	2-Methylnaphthalene	02	62	5.50E+00	1.63E-01	5.00E-03	24	N	0%	98%
SVOC	2-Methylnaphthalene	03	2	3.80E-02	2.15E-02	5.00E-03	24	N	0%	100%
SVOC	2-Methylnaphthalene	04	19	7.50E-01	1.56E-01	1.70E-02	24	N	0%	100%
SVOC	2-Methylnaphthalene	05	28	1.30E-01	4.69E-02	1.80E-02	24	N	0%	100%
SVOC	2-Methylnaphthalene	06	19	1.80E-01	3.91E-02	1.75E-02	24	N	0%	95%
SVOC	2-Methylnaphthalene	08	22	6.00E-01	6.37E-02	5.00E-03	24	N	0%	100%
SVOC	2-Methylnaphthalene	09	32	6.50E-01	8.60E-02	5.00E-03	24	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	2-Methylnaphthalene	10	33	1.80E-01	5.51E-02	5.00E-03	24	N	0%	100%
SVOC	2-Methylnaphthalene	11	40	8.50E+00	3.36E-01	5.00E-03	24	N	0%	98%
SVOC	2-Methylnaphthalene	12	20	3.60E-01	3.24E-02	5.00E-03	24	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	01	51	2.90E+00	1.14E-01	8.00E-03	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	02	62	1.40E+00	1.06E-01	8.00E-03	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	03	2	4.35E-02	2.58E-02	8.00E-03	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	04	18	8.50E-01	1.69E-01	2.65E-02	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	05	28	1.40E-01	5.06E-02	2.75E-02	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	06	19	2.05E-01	4.38E-02	2.70E-02	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	08	22	5.50E-01	6.53E-02	8.00E-03	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	09	32	7.00E-01	9.57E-02	8.00E-03	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	10	33	1.65E-01	5.74E-02	8.00E-03	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	11	39	9.50E+00	3.40E-01	8.00E-03	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	12	20	4.10E-01	3.78E-02	8.00E-03	320	N	0%	100%
SVOC	2-Nitroaniline	01	51	3.10E+00	1.07E-01	8.00E-03	63	N	0%	100%
SVOC	2-Nitroaniline	02	62	1.50E+00	9.92E-02	8.50E-03	63	N	0%	100%
SVOC	2-Nitroaniline	03	2	3.65E-02	2.25E-02	8.50E-03	63	N	0%	100%
SVOC	2-Nitroaniline	04	19	7.00E-01	1.65E-01	8.00E-03	63	N	0%	100%
SVOC	2-Nitroaniline	05	28	1.15E-01	3.63E-02	7.50E-03	63	N	0%	100%
SVOC	2-Nitroaniline	06	19	1.70E-01	3.27E-02	7.50E-03	63	N	0%	100%
SVOC	2-Nitroaniline	08	22	6.00E-01	5.67E-02	7.50E-03	63	N	0%	100%
SVOC	2-Nitroaniline	09	32	3.55E-01	5.43E-02	7.50E-03	63	N	0%	100%
SVOC	2-Nitroaniline	10	33	1.75E-01	4.93E-02	7.50E-03	63	N	0%	100%
SVOC	2-Nitroaniline	11	40	8.00E+00	2.75E-01	7.50E-03	63	N	0%	100%
SVOC	2-Nitroaniline	12	20	3.05E-01	2.61E-02	8.00E-03	63	N	0%	100%
SVOC	3,3'-Dichlorobenzidine	01	50	2.75E+01	7.00E-01	2.25E-02	1.2	Y	2%	100%
SVOC	3,3'-Dichlorobenzidine	02	60	1.35E+01	6.74E-01	2.20E-02	1.2	Y	14%	100%
SVOC	3,3'-Dichlorobenzidine	03	2	8.00E-02	5.10E-02	2.20E-02	1.2	N	0%	100%
SVOC	3,3'-Dichlorobenzidine	04	18	2.55E+00	6.05E-01	7.00E-02	1.2	Y	28%	100%
SVOC	3,3'-Dichlorobenzidine	05	28	3.40E-01	1.42E-01	7.00E-02	1.2	N	0%	100%
SVOC	3,3'-Dichlorobenzidine	06	19	3.85E-01	1.21E-01	7.00E-02	1.2	N	0%	100%
SVOC	3,3'-Dichlorobenzidine	08	21	1.30E+00	1.50E-01	2.20E-02	1.2	Y	5%	100%
SVOC	3,3'-Dichlorobenzidine	09	30	1.75E+00	2.19E-01	2.20E-02	1.2	Y	7%	100%
SVOC	3,3'-Dichlorobenzidine	10	33	1.30E+00	1.28E-01	2.20E-02	1.2	Y	3%	100%
SVOC	3,3'-Dichlorobenzidine	11	38	1.80E+01	8.10E-01	2.20E-02	1.2	Y	13%	100%
SVOC	3,3'-Dichlorobenzidine	12	20	7.50E-01	7.92E-02	2.20E-02	1.2	N	0%	100%
SVOC	4,6-Dinitro-2-methylphenol	01	51	2.25E+00	1.26E-01	9.00E-03	0.51	Y	8%	100%
SVOC	4,6-Dinitro-2-methylphenol	02	62	1.10E+00	1.14E-01	8.50E-03	0.51	Y	10%	100%
SVOC	4,6-Dinitro-2-methylphenol	03	2	7.00E-02	3.93E-02	8.50E-03	0.51	N	0%	100%
SVOC	4,6-Dinitro-2-methylphenol	04	18	1.40E+00	2.00E-01	2.10E-02	0.51	Y	6%	100%
SVOC	4,6-Dinitro-2-methylphenol	05	28	1.55E-01	5.96E-02	2.20E-02	0.51	N	0%	100%
SVOC	4,6-Dinitro-2-methylphenol	06	19	3.40E-01	6.47E-02	2.10E-02	0.51	N	0%	100%
SVOC	4,6-Dinitro-2-methylphenol	08	22	4.60E-01	6.35E-02	8.50E-03	0.51	N	0%	100%
SVOC	4,6-Dinitro-2-methylphenol	09	31	8.00E-01	1.10E-01	8.50E-03	0.51	Y	6%	100%
SVOC	4,6-Dinitro-2-methylphenol	10	33	1.35E-01	6.32E-02	8.50E-03	0.51	N	0%	100%
SVOC	4,6-Dinitro-2-methylphenol	11	39	1.60E+01	5.30E-01	8.50E-03	0.51	Y	8%	100%
SVOC	4,6-Dinitro-2-methylphenol	12	20	5.50E-01	4.90E-02	8.50E-03	0.51	Y	5%	100%
SVOC	4-Chloro-3-methylphenol	01	51	2.05E+00	8.70E-02	5.50E-03	630	N	0%	100%
SVOC	4-Chloro-3-methylphenol	02	62	1.00E+00	7.93E-02	5.50E-03	630	N	0%	100%
SVOC	4-Chloro-3-methylphenol	03	2	3.80E-02	2.18E-02	5.50E-03	630	N	0%	100%
SVOC	4-Chloro-3-methylphenol	04	18	7.50E-01	1.46E-01	1.00E-02	630	N	0%	100%
SVOC	4-Chloro-3-methylphenol	05	28	1.10E-01	3.56E-02	1.00E-02	630	N	0%	100%
SVOC	4-Chloro-3-methylphenol	06	19	1.80E-01	3.32E-02	9.50E-03	630	N	0%	100%
SVOC	4-Chloro-3-methylphenol	08	22	5.50E-01	5.23E-02	5.50E-03	630	N	0%	100%
SVOC	4-Chloro-3-methylphenol	09	32	3.70E-01	5.80E-02	5.50E-03	630	N	0%	100%
SVOC	4-Chloro-3-methylphenol	10	33	1.65E-01	4.77E-02	5.50E-03	630	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	4-Chloro-3-methylphenol	11	39	8.50E+00	2.85E-01	5.50E-03	630	N	0%	100%
SVOC	4-Chloro-3-methylphenol	12	20	3.60E-01	2.79E-02	5.50E-03	630	N	0%	100%
SVOC	4-Chloroaniline	01	51	1.65E+01	4.38E-01	2.25E-02	2.7	Y	2%	100%
SVOC	4-Chloroaniline	02	62	8.00E+00	4.16E-01	2.90E-02	2.7	Y	5%	100%
SVOC	4-Chloroaniline	03	2	7.00E-02	4.95E-02	2.90E-02	2.7	N	0%	100%
SVOC	4-Chloroaniline	04	18	1.55E+00	4.18E-01	2.30E-02	2.7	N	0%	100%
SVOC	4-Chloroaniline	05	28	1.75E-01	8.31E-02	2.25E-02	2.7	N	0%	100%
SVOC	4-Chloroaniline	06	19	3.40E-01	8.32E-02	2.20E-02	2.7	N	0%	100%
SVOC	4-Chloroaniline	08	22	8.00E-01	1.00E-01	2.25E-02	2.7	N	0%	100%
SVOC	4-Chloroaniline	09	32	7.00E-01	1.22E-01	2.25E-02	2.7	N	0%	100%
SVOC	4-Chloroaniline	10	33	8.00E-01	8.40E-02	2.25E-02	2.7	N	0%	100%
SVOC	4-Chloroaniline	11	40	1.60E+01	5.68E-01	2.20E-02	2.7	Y	3%	100%
SVOC	4-Chloroaniline	12	20	6.00E-01	6.10E-02	2.25E-02	2.7	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	01	51	2.25E+00	1.16E-01	6.00E-03	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	02	62	1.10E+00	1.06E-01	5.50E-03	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	03	2	7.00E-02	3.78E-02	5.50E-03	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	04	18	1.40E+00	2.09E-01	2.05E-02	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	05	28	1.10E-01	5.58E-02	2.15E-02	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	06	19	3.40E-01	6.17E-02	2.10E-02	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	08	22	5.50E-01	6.40E-02	5.50E-03	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	09	32	7.00E-01	1.10E-01	5.50E-03	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	10	33	1.65E-01	6.38E-02	5.50E-03	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	11	39	1.60E+01	5.21E-01	5.50E-03	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	12	20	4.10E-01	3.73E-02	5.50E-03	630	N	0%	100%
SVOC	4-Nitroaniline	01	51	3.45E+00	1.49E-01	1.15E-02	25	N	0%	100%
SVOC	4-Nitroaniline	02	62	1.70E+00	1.39E-01	1.10E-02	25	N	0%	100%
SVOC	4-Nitroaniline	03	2	7.00E-02	4.05E-02	1.10E-02	25	N	0%	100%
SVOC	4-Nitroaniline	04	19	1.40E+00	2.36E-01	3.15E-02	25	N	0%	100%
SVOC	4-Nitroaniline	05	28	2.00E-01	6.76E-02	3.35E-02	25	N	0%	100%
SVOC	4-Nitroaniline	06	19	3.40E-01	6.91E-02	3.20E-02	25	N	0%	100%
SVOC	4-Nitroaniline	08	22	4.60E-01	7.19E-02	1.10E-02	25	N	0%	100%
SVOC	4-Nitroaniline	09	32	1.00E+00	1.45E-01	1.10E-02	25	N	0%	100%
SVOC	4-Nitroaniline	10	33	1.65E-01	6.75E-02	1.10E-02	25	N	0%	100%
SVOC	4-Nitroaniline	11	40	1.60E+01	5.84E-01	1.10E-02	25	N	0%	100%
SVOC	4-Nitroaniline	12	20	4.60E-01	4.85E-02	1.10E-02	25	N	0%	100%
SVOC	Acenaphthene	01	51	2.20E+00	5.83E-02	1.00E-03	360	N	0%	100%
SVOC	Acenaphthene	02	62	1.10E+00	5.45E-02	2.05E-03	360	N	0%	100%
SVOC	Acenaphthene	03	2	4.35E-03	3.25E-03	2.15E-03	360	N	0%	100%
SVOC	Acenaphthene	04	19	5.00E-01	7.91E-02	2.05E-03	360	N	0%	95%
SVOC	Acenaphthene	05	28	1.05E-01	2.40E-02	2.05E-03	360	N	0%	100%
SVOC	Acenaphthene	06	19	1.20E-01	1.87E-02	2.05E-03	360	N	0%	89%
SVOC	Acenaphthene	08	22	5.50E-01	4.81E-02	2.10E-03	360	N	0%	100%
SVOC	Acenaphthene	09	32	2.95E-01	3.56E-02	2.05E-03	360	N	0%	100%
SVOC	Acenaphthene	10	33	1.60E-01	3.38E-02	2.10E-03	360	N	0%	97%
SVOC	Acenaphthene	11	40	6.00E-01	5.81E-02	2.10E-03	360	N	0%	98%
SVOC	Acenaphthene	12	19	2.30E-02	6.67E-03	2.05E-03	360	N	0%	100%
SVOC	Acenaphthylene	01	51	2.15E+00	5.86E-02	1.00E-03	360	N	0%	100%
SVOC	Acenaphthylene	02	62	1.05E+00	5.51E-02	2.05E-03	360	N	0%	98%
SVOC	Acenaphthylene	03	2	3.80E-03	2.98E-03	2.15E-03	360	N	0%	100%
SVOC	Acenaphthylene	04	19	5.50E-01	8.22E-02	2.05E-03	360	N	0%	95%
SVOC	Acenaphthylene	05	28	1.15E-01	3.18E-02	2.05E-03	360	N	0%	100%
SVOC	Acenaphthylene	06	19	2.25E-02	1.22E-02	2.05E-03	360	N	0%	100%
SVOC	Acenaphthylene	08	22	6.00E-01	5.70E-02	2.10E-03	360	N	0%	100%
SVOC	Acenaphthylene	09	32	5.50E-01	5.45E-02	2.05E-03	360	N	0%	97%
SVOC	Acenaphthylene	10	33	1.75E-01	3.95E-02	2.10E-03	360	N	0%	97%
SVOC	Acenaphthylene	11	40	1.20E+00	8.44E-02	2.10E-03	360	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	Acenaphthylene	12	19	4.35E-02	9.62E-03	2.05E-03	360	N	0%	100%
SVOC	Anthracene	01	51	1.70E+00	5.54E-02	1.00E-03	1800	N	0%	100%
SVOC	Anthracene	02	62	1.50E+00	5.58E-02	2.05E-03	1800	N	0%	98%
SVOC	Anthracene	03	2	7.00E-03	4.58E-03	2.15E-03	1800	N	0%	100%
SVOC	Anthracene	04	19	4.45E-01	7.07E-02	2.05E-03	1800	N	0%	95%
SVOC	Anthracene	05	28	2.95E-01	5.22E-02	2.05E-03	1800	N	0%	100%
SVOC	Anthracene	06	19	6.00E-02	2.36E-02	2.05E-03	1800	N	0%	100%
SVOC	Anthracene	08	22	4.60E-01	6.78E-02	2.10E-03	1800	N	0%	100%
SVOC	Anthracene	09	32	1.55E+00	1.24E-01	2.05E-03	1800	N	0%	100%
SVOC	Anthracene	10	33	1.35E-01	4.53E-02	2.10E-03	1800	N	0%	100%
SVOC	Anthracene	11	40	3.25E+00	1.79E-01	2.10E-03	1800	N	0%	100%
SVOC	Anthracene	12	19	1.20E-01	2.38E-02	2.05E-03	1800	N	0%	100%
SVOC	Benzo(a)anthracene	01	51	9.50E-01	3.16E-02	1.00E-03	0.16	Y	2%	100%
SVOC	Benzo(a)anthracene	02	62	4.65E-01	2.81E-02	2.05E-03	0.16	Y	7%	98%
SVOC	Benzo(a)anthracene	03	2	3.80E-03	2.98E-03	2.15E-03	0.16	N	0%	100%
SVOC	Benzo(a)anthracene	04	19	1.80E+00	1.82E-01	2.10E-03	0.16	Y	16%	74%
SVOC	Benzo(a)anthracene	05	28	8.00E-02	1.90E-02	2.05E-03	0.16	N	0%	96%
SVOC	Benzo(a)anthracene	06	19	2.90E-01	2.69E-02	2.05E-03	0.16	Y	5%	84%
SVOC	Benzo(a)anthracene	08	22	4.05E-01	3.53E-02	2.10E-03	0.16	Y	5%	100%
SVOC	Benzo(a)anthracene	09	32	2.95E-01	4.05E-02	2.05E-03	0.16	Y	13%	94%
SVOC	Benzo(a)anthracene	10	33	1.20E-01	2.57E-02	2.10E-03	0.16	N	0%	97%
SVOC	Benzo(a)anthracene	11	40	6.00E-01	4.92E-02	2.10E-03	0.16	Y	5%	98%
SVOC	Benzo(a)anthracene	12	19	2.30E-02	6.30E-03	2.05E-03	0.16	N	0%	100%
SVOC	Benzo(a)pyrene	01	51	1.70E+00	5.37E-02	1.00E-03	0.016	Y	35%	100%
SVOC	Benzo(a)pyrene	02	62	1.30E+00	5.34E-02	2.05E-03	0.016	Y	33%	100%
SVOC	Benzo(a)pyrene	03	2	5.00E-03	3.58E-03	2.15E-03	0.016	N	0%	100%
SVOC	Benzo(a)pyrene	04	19	1.70E+00	1.85E-01	2.10E-03	0.016	Y	84%	79%
SVOC	Benzo(a)pyrene	05	28	2.65E-01	4.98E-02	2.05E-03	0.016	Y	64%	100%
SVOC	Benzo(a)pyrene	06	19	2.70E-01	3.75E-02	2.05E-03	0.016	Y	53%	84%
SVOC	Benzo(a)pyrene	08	22	5.50E-01	7.02E-02	2.10E-03	0.016	Y	82%	100%
SVOC	Benzo(a)pyrene	09	32	1.35E+00	1.16E-01	2.05E-03	0.016	Y	41%	97%
SVOC	Benzo(a)pyrene	10	33	1.60E-01	4.77E-02	2.10E-03	0.016	Y	64%	97%
SVOC	Benzo(a)pyrene	11	40	2.85E+00	1.64E-01	2.10E-03	0.016	Y	73%	100%
SVOC	Benzo(a)pyrene	12	19	1.05E-01	2.05E-02	2.05E-03	0.016	Y	26%	100%
SVOC	Benzo(b)fluoranthene	01	51	1.75E+00	9.14E-02	1.00E-03	0.16	Y	4%	100%
SVOC	Benzo(b)fluoranthene	02	62	1.60E+00	1.12E-01	2.05E-03	0.16	Y	10%	100%
SVOC	Benzo(b)fluoranthene	03	2	1.25E-01	6.36E-02	2.15E-03	0.16	N	0%	100%
SVOC	Benzo(b)fluoranthene	04	19	3.10E+00	2.86E-01	2.10E-03	0.16	Y	21%	79%
SVOC	Benzo(b)fluoranthene	05	28	3.20E-01	5.70E-02	2.05E-03	0.16	Y	7%	93%
SVOC	Benzo(b)fluoranthene	06	19	3.80E-01	6.05E-02	2.05E-03	0.16	Y	11%	84%
SVOC	Benzo(b)fluoranthene	08	22	4.85E-01	7.79E-02	2.10E-03	0.16	Y	5%	95%
SVOC	Benzo(b)fluoranthene	09	32	1.65E+00	1.87E-01	2.05E-03	0.16	Y	16%	97%
SVOC	Benzo(b)fluoranthene	10	33	1.45E-01	5.25E-02	2.10E-03	0.16	N	0%	94%
SVOC	Benzo(b)fluoranthene	11	40	3.45E+00	2.02E-01	2.10E-03	0.16	Y	13%	98%
SVOC	Benzo(b)fluoranthene	12	19	1.30E-01	9.97E-02	2.05E-03	0.16	N	0%	100%
SVOC	Benzo(k)fluoranthene	01	51	2.30E+00	9.82E-02	1.00E-03	1.6	Y	2%	100%
SVOC	Benzo(k)fluoranthene	02	62	1.10E+00	1.15E-01	2.05E-03	1.6	N	0%	100%
SVOC	Benzo(k)fluoranthene	03	2	1.25E-01	6.36E-02	2.15E-03	1.6	N	0%	100%
SVOC	Benzo(k)fluoranthene	04	19	1.20E+00	1.50E-01	2.10E-03	1.6	N	0%	79%
SVOC	Benzo(k)fluoranthene	05	28	1.40E-01	3.38E-02	2.05E-03	1.6	N	0%	100%
SVOC	Benzo(k)fluoranthene	06	19	1.60E-01	2.77E-02	2.05E-03	1.6	N	0%	84%
SVOC	Benzo(k)fluoranthene	08	22	4.85E-01	5.92E-02	2.10E-03	1.6	N	0%	100%
SVOC	Benzo(k)fluoranthene	09	32	7.00E-01	1.20E-01	2.05E-03	1.6	N	0%	97%
SVOC	Benzo(k)fluoranthene	10	33	1.45E-01	4.08E-02	2.10E-03	1.6	N	0%	97%
SVOC	Benzo(k)fluoranthene	11	40	1.50E+00	1.06E-01	2.10E-03	1.6	N	0%	100%
SVOC	Benzo(k)fluoranthene	12	19	1.25E-01	8.81E-02	2.05E-03	1.6	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	Benzoic acid	01	50	2.75E+01	7.04E-01	1.40E-03	25000	N	0%	100%
SVOC	Benzoic acid	02	61	1.35E+01	6.69E-01	1.35E-03	25000	N	0%	100%
SVOC	Benzoic acid	03	2	8.00E-02	4.07E-02	1.35E-03	25000	N	0%	100%
SVOC	Benzoic acid	04	17	2.55E+00	6.28E-01	8.00E-02	25000	N	0%	100%
SVOC	Benzoic acid	05	28	6.00E-01	1.74E-01	7.50E-02	25000	N	0%	100%
SVOC	Benzoic acid	06	19	3.85E-01	1.38E-01	7.50E-02	25000	N	0%	100%
SVOC	Benzoic acid	08	22	1.30E+00	2.00E-01	1.35E-03	25000	N	0%	95%
SVOC	Benzoic acid	09	32	3.15E+00	3.03E-01	1.35E-03	25000	N	0%	97%
SVOC	Benzoic acid	10	33	1.30E+00	1.42E-01	1.35E-03	25000	N	0%	100%
SVOC	Benzoic acid	11	39	1.80E+01	7.74E-01	1.35E-03	25000	N	0%	97%
SVOC	Benzoic acid	12	20	7.50E-01	8.33E-02	1.35E-03	25000	N	0%	100%
SVOC	Benzyl alcohol	01	26	3.75E+00	1.62E-01	6.00E-03	630	N	0%	100%
SVOC	Benzyl alcohol	02	43	1.85E+00	1.19E-01	5.50E-03	630	N	0%	100%
SVOC	Benzyl alcohol	03	1	5.50E-03	5.50E-03	5.50E-03	630	N	0%	100%
SVOC	Benzyl alcohol	04	11	3.50E-01	1.27E-01	9.00E-03	630	N	0%	100%
SVOC	Benzyl alcohol	05	18	1.30E-01	4.22E-02	8.50E-03	630	N	0%	100%
SVOC	Benzyl alcohol	06	9	3.65E-02	1.77E-02	8.50E-03	630	N	0%	100%
SVOC	Benzyl alcohol	08	19	6.50E-01	6.65E-02	5.50E-03	630	N	0%	100%
SVOC	Benzyl alcohol	09	19	2.25E-01	3.72E-02	5.50E-03	630	N	0%	100%
SVOC	Benzyl alcohol	10	21	1.90E-01	6.12E-02	5.50E-03	630	N	0%	100%
SVOC	Benzyl alcohol	11	29	2.70E-01	5.41E-02	5.50E-03	630	N	0%	100%
SVOC	Benzyl alcohol	12	17	1.75E-02	7.00E-03	5.50E-03	630	N	0%	100%
SVOC	Benzyl butyl phthalate	01	51	1.50E+00	8.33E-02	6.00E-03	290	N	0%	100%
SVOC	Benzyl butyl phthalate	02	62	3.60E+00	1.86E-01	5.50E-03	290	N	0%	88%
SVOC	Benzyl butyl phthalate	03	2	4.35E-02	2.45E-02	5.50E-03	290	N	0%	100%
SVOC	Benzyl butyl phthalate	04	19	8.50E-01	1.49E-01	1.40E-02	290	N	0%	100%
SVOC	Benzyl butyl phthalate	05	28	1.25E-01	4.39E-02	1.45E-02	290	N	0%	100%
SVOC	Benzyl butyl phthalate	06	19	2.05E-01	4.10E-02	1.40E-02	290	N	0%	100%
SVOC	Benzyl butyl phthalate	08	22	4.60E-01	5.36E-02	5.50E-03	290	N	0%	100%
SVOC	Benzyl butyl phthalate	09	32	6.50E-01	8.99E-02	5.50E-03	290	N	0%	100%
SVOC	Benzyl butyl phthalate	10	33	1.35E-01	4.92E-02	5.50E-03	290	N	0%	100%
SVOC	Benzyl butyl phthalate	11	40	9.50E+00	3.57E-01	5.50E-03	290	N	0%	98%
SVOC	Benzyl butyl phthalate	12	20	4.10E-01	3.55E-02	5.50E-03	290	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	01	51	3.20E+00	1.39E-01	4.70E-03	19	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	02	62	1.60E+00	1.32E-01	4.55E-03	19	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	03	2	7.00E-02	3.73E-02	4.55E-03	19	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	04	19	1.40E+00	2.43E-01	2.95E-02	19	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	05	28	2.85E-01	8.03E-02	3.10E-02	19	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	06	19	3.40E-01	7.43E-02	3.00E-02	19	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	08	22	5.50E-01	8.69E-02	4.55E-03	19	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	09	32	1.45E+00	1.73E-01	4.55E-03	19	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	10	33	1.65E-01	7.75E-02	4.55E-03	19	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	11	40	1.60E+01	6.32E-01	4.55E-03	19	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	12	20	3.60E-01	4.52E-02	4.55E-03	19	N	0%	100%
SVOC	bis(2-Chloroethyl)ether	01	51	8.00E+00	2.11E-01	8.00E-03	0.23	Y	8%	100%
SVOC	bis(2-Chloroethyl)ether	02	62	4.00E+00	2.04E-01	7.50E-03	0.23	Y	18%	100%
SVOC	bis(2-Chloroethyl)ether	03	2	3.25E-02	2.00E-02	7.50E-03	0.23	N	0%	100%
SVOC	bis(2-Chloroethyl)ether	04	19	7.50E-01	2.03E-01	2.25E-02	0.23	Y	37%	100%
SVOC	bis(2-Chloroethyl)ether	05	28	1.10E-01	4.81E-02	2.20E-02	0.23	N	0%	100%
SVOC	bis(2-Chloroethyl)ether	06	19	1.55E-01	4.24E-02	2.20E-02	0.23	N	0%	100%
SVOC	bis(2-Chloroethyl)ether	08	22	3.85E-01	5.74E-02	7.50E-03	0.23	Y	9%	100%
SVOC	bis(2-Chloroethyl)ether	09	32	6.00E-01	7.58E-02	7.50E-03	0.23	Y	9%	100%
SVOC	bis(2-Chloroethyl)ether	10	33	3.90E-01	4.60E-02	7.50E-03	0.23	Y	3%	100%
SVOC	bis(2-Chloroethyl)ether	11	40	7.00E+00	2.86E-01	7.50E-03	0.23	Y	13%	100%
SVOC	bis(2-Chloroethyl)ether	12	20	3.05E-01	2.97E-02	7.50E-03	0.23	Y	5%	100%
SVOC	bis(2-Chloroisopropyl)ether	01	51	7.50E+00	2.30E-01	8.00E-03	310	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	bis(2-Chloroisopropyl)ether	02	62	3.80E+00	2.25E-01	8.00E-03	310	N	0%	100%
SVOC	bis(2-Chloroisopropyl)ether	03	2	7.00E-02	3.90E-02	8.00E-03	310	N	0%	100%
SVOC	bis(2-Chloroisopropyl)ether	04	19	1.40E+00	3.23E-01	6.00E-02	310	N	0%	100%
SVOC	bis(2-Chloroisopropyl)ether	05	28	3.00E-01	9.64E-02	6.00E-02	310	N	0%	100%
SVOC	bis(2-Chloroisopropyl)ether	06	19	3.40E-01	8.21E-02	6.00E-02	310	N	0%	100%
SVOC	bis(2-Chloroisopropyl)ether	08	22	8.00E-01	1.17E-01	8.00E-03	310	N	0%	100%
SVOC	bis(2-Chloroisopropyl)ether	09	32	1.55E+00	1.83E-01	8.00E-03	310	N	0%	100%
SVOC	bis(2-Chloroisopropyl)ether	10	33	3.75E-01	9.57E-02	8.00E-03	310	N	0%	100%
SVOC	bis(2-Chloroisopropyl)ether	11	40	1.60E+01	6.59E-01	8.00E-03	310	N	0%	100%
SVOC	bis(2-Chloroisopropyl)ether	12	20	3.05E-01	4.51E-02	8.00E-03	310	N	0%	100%
SVOC	bis(2-Ethylhexyl)phthalate	01	51	1.95E+00	1.06E-01	4.80E-03	39	N	0%	96%
SVOC	bis(2-Ethylhexyl)phthalate	02	62	2.50E+00	1.80E-01	4.65E-03	39	N	0%	87%
SVOC	bis(2-Ethylhexyl)phthalate	03	2	4.90E-02	2.68E-02	4.65E-03	39	N	0%	100%
SVOC	bis(2-Ethylhexyl)phthalate	04	19	1.20E+00	3.25E-01	2.40E-02	39	N	0%	68%
SVOC	bis(2-Ethylhexyl)phthalate	05	28	4.90E-01	6.88E-02	1.90E-02	39	N	0%	96%
SVOC	bis(2-Ethylhexyl)phthalate	06	19	3.70E-01	6.36E-02	1.85E-02	39	N	0%	95%
SVOC	bis(2-Ethylhexyl)phthalate	08	22	6.50E-01	9.29E-02	4.65E-03	39	N	0%	91%
SVOC	bis(2-Ethylhexyl)phthalate	09	32	7.90E-01	1.37E-01	4.65E-03	39	N	0%	91%
SVOC	bis(2-Ethylhexyl)phthalate	10	33	1.50E+00	1.52E-01	4.65E-03	39	N	0%	88%
SVOC	bis(2-Ethylhexyl)phthalate	11	40	1.10E+01	6.31E-01	4.65E-03	39	N	0%	90%
SVOC	bis(2-Ethylhexyl)phthalate	12	20	4.60E-01	3.76E-02	4.65E-03	39	N	0%	100%
SVOC	Chrysene	01	51	1.20E+00	3.96E-02	1.00E-03	16	N	0%	92%
SVOC	Chrysene	02	62	6.00E-01	3.86E-02	2.05E-03	16	N	0%	95%
SVOC	Chrysene	03	2	5.50E-03	3.83E-03	2.15E-03	16	N	0%	100%
SVOC	Chrysene	04	19	2.60E+00	2.42E-01	2.10E-03	16	N	0%	74%
SVOC	Chrysene	05	28	1.05E-01	2.74E-02	2.05E-03	16	N	0%	96%
SVOC	Chrysene	06	19	9.00E-01	7.36E-02	2.05E-03	16	N	0%	79%
SVOC	Chrysene	08	22	4.30E-01	4.40E-02	2.10E-03	16	N	0%	91%
SVOC	Chrysene	09	32	5.50E-01	6.07E-02	2.05E-03	16	N	0%	91%
SVOC	Chrysene	10	33	1.25E-01	3.13E-02	2.10E-03	16	N	0%	91%
SVOC	Chrysene	11	40	1.15E+00	8.50E-02	2.10E-03	16	N	0%	93%
SVOC	Chrysene	12	19	4.25E-02	1.05E-02	2.05E-03	16	N	0%	100%
SVOC	Dibenz(a,h)anthracene	01	51	2.70E+00	7.09E-02	1.25E-03	0.016	Y	31%	100%
SVOC	Dibenz(a,h)anthracene	02	62	1.35E+00	6.67E-02	2.05E-03	0.016	Y	34%	100%
SVOC	Dibenz(a,h)anthracene	03	2	9.00E-03	5.58E-03	2.15E-03	0.016	N	0%	100%
SVOC	Dibenz(a,h)anthracene	04	19	6.50E-01	1.02E-01	2.10E-03	0.016	Y	68%	84%
SVOC	Dibenz(a,h)anthracene	05	28	1.35E-01	2.83E-02	2.05E-03	0.016	Y	43%	100%
SVOC	Dibenz(a,h)anthracene	06	19	5.60E-02	1.22E-02	2.05E-03	0.016	Y	26%	89%
SVOC	Dibenz(a,h)anthracene	08	22	6.50E-01	5.69E-02	2.10E-03	0.016	Y	27%	100%
SVOC	Dibenz(a,h)anthracene	09	32	3.00E-01	3.90E-02	2.05E-03	0.016	Y	22%	100%
SVOC	Dibenz(a,h)anthracene	10	33	2.00E-01	4.11E-02	2.10E-03	0.016	Y	30%	100%
SVOC	Dibenz(a,h)anthracene	11	40	6.50E-01	6.20E-02	2.10E-03	0.016	Y	40%	100%
SVOC	Dibenz(a,h)anthracene	12	19	2.35E-02	9.69E-03	2.05E-03	0.016	Y	5%	100%
SVOC	Dibenzofuran	01	51	2.30E+00	9.19E-02	4.95E-03	7.3	N	0%	100%
SVOC	Dibenzofuran	02	62	1.15E+00	8.67E-02	4.80E-03	7.3	N	0%	100%
SVOC	Dibenzofuran	03	2	3.65E-02	2.07E-02	4.80E-03	7.3	N	0%	100%
SVOC	Dibenzofuran	04	19	7.00E-01	1.50E-01	2.10E-02	7.3	N	0%	100%
SVOC	Dibenzofuran	05	28	1.60E-01	4.88E-02	2.25E-02	7.3	N	0%	100%
SVOC	Dibenzofuran	06	19	1.70E-01	4.41E-02	2.20E-02	7.3	N	0%	95%
SVOC	Dibenzofuran	08	22	5.00E-01	6.19E-02	4.80E-03	7.3	N	0%	100%
SVOC	Dibenzofuran	09	32	8.50E-01	9.68E-02	4.80E-03	7.3	N	0%	100%
SVOC	Dibenzofuran	10	33	1.50E-01	5.24E-02	4.80E-03	7.3	N	0%	100%
SVOC	Dibenzofuran	11	40	8.00E+00	3.35E-01	4.80E-03	7.3	Y	3%	100%
SVOC	Dibenzofuran	12	20	3.05E-01	3.14E-02	4.80E-03	7.3	N	0%	100%
SVOC	Diethyl phthalate	01	51	2.10E+00	1.10E-01	7.50E-03	5100	N	0%	100%
SVOC	Diethyl phthalate	02	62	1.35E+00	1.04E-01	7.00E-03	5100	N	0%	97%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	Diethyl phthalate	03	2	5.00E-02	2.85E-02	7.00E-03	5100	N	0%	100%
SVOC	Diethyl phthalate	04	19	1.00E+00	1.80E-01	1.95E-02	5100	N	0%	100%
SVOC	Diethyl phthalate	05	28	2.70E-01	6.79E-02	2.05E-02	5100	N	0%	100%
SVOC	Diethyl phthalate	06	19	2.45E-01	5.70E-02	1.95E-02	5100	N	0%	100%
SVOC	Diethyl phthalate	08	22	5.00E-01	7.58E-02	7.00E-03	5100	N	0%	100%
SVOC	Diethyl phthalate	09	32	1.40E+00	1.70E-01	7.00E-03	5100	N	0%	94%
SVOC	Diethyl phthalate	10	33	1.50E-01	6.58E-02	7.00E-03	5100	N	0%	100%
SVOC	Diethyl phthalate	11	40	1.15E+01	4.92E-01	7.00E-03	5100	N	0%	100%
SVOC	Diethyl phthalate	12	20	4.85E-01	6.30E-02	7.00E-03	5100	N	0%	90%
SVOC	dI-n-Butyl phthalate	01	51	1.15E+00	7.91E-02	6.00E-03	630	N	0%	100%
SVOC	dI-n-Butyl phthalate	02	62	5.50E-01	7.21E-02	6.00E-03	630	N	0%	93%
SVOC	dI-n-Butyl phthalate	03	2	4.90E-02	2.75E-02	6.00E-03	630	N	0%	100%
SVOC	dI-n-Butyl phthalate	04	19	9.50E-01	1.59E-01	7.00E-03	630	N	0%	100%
SVOC	dI-n-Butyl phthalate	05	28	1.00E-01	3.45E-02	7.00E-03	630	N	0%	100%
SVOC	dI-n-Butyl phthalate	06	19	2.30E-01	3.86E-02	7.00E-03	630	N	0%	100%
SVOC	dI-n-Butyl phthalate	08	22	5.00E-01	4.96E-02	6.00E-03	630	N	0%	91%
SVOC	dI-n-Butyl phthalate	09	32	4.80E-01	6.83E-02	6.00E-03	630	N	0%	100%
SVOC	dI-n-Butyl phthalate	10	33	1.50E-01	4.68E-02	6.00E-03	630	N	0%	100%
SVOC	dI-n-Butyl phthalate	11	40	1.10E+01	3.51E-01	6.00E-03	630	N	0%	100%
SVOC	dI-n-Butyl phthalate	12	20	4.60E-01	3.35E-02	6.00E-03	630	N	0%	100%
SVOC	Fluoranthene	01	51	9.50E-01	3.89E-02	1.00E-03	240	N	0%	92%
SVOC	Fluoranthene	02	62	1.35E+00	4.02E-02	2.05E-03	240	N	0%	98%
SVOC	Fluoranthene	03	2	5.50E-03	3.83E-03	2.15E-03	240	N	0%	100%
SVOC	Fluoranthene	04	19	3.50E+00	3.39E-01	2.10E-03	240	N	0%	63%
SVOC	Fluoranthene	05	28	2.70E-01	4.97E-02	2.05E-03	240	N	0%	93%
SVOC	Fluoranthene	06	19	2.20E+00	1.80E-01	2.05E-03	240	N	0%	74%
SVOC	Fluoranthene	08	22	4.85E-01	6.53E-02	2.10E-03	240	N	0%	91%
SVOC	Fluoranthene	09	32	1.40E+00	1.23E-01	2.05E-03	240	N	0%	94%
SVOC	Fluoranthene	10	33	1.45E-01	4.53E-02	2.10E-03	240	N	0%	91%
SVOC	Fluoranthene	11	40	2.95E+00	1.87E-01	2.10E-03	240	N	0%	93%
SVOC	Fluoranthene	12	19	1.10E-01	2.11E-02	2.05E-03	240	N	0%	100%
SVOC	Fluorene	01	51	2.10E+00	5.64E-02	1.00E-03	240	N	0%	100%
SVOC	Fluorene	02	62	1.05E+00	5.22E-02	2.05E-03	240	N	0%	98%
SVOC	Fluorene	03	2	3.95E-03	3.05E-03	2.15E-03	240	N	0%	100%
SVOC	Fluorene	04	19	4.70E-01	7.36E-02	2.05E-03	240	N	0%	95%
SVOC	Fluorene	05	28	9.50E-02	2.37E-02	2.05E-03	240	N	0%	100%
SVOC	Fluorene	06	19	1.30E-01	1.88E-02	2.05E-03	240	N	0%	89%
SVOC	Fluorene	08	22	4.85E-01	4.52E-02	2.10E-03	240	N	0%	95%
SVOC	Fluorene	09	32	3.25E-01	3.73E-02	2.05E-03	240	N	0%	100%
SVOC	Fluorene	10	33	1.45E-01	3.18E-02	2.10E-03	240	N	0%	97%
SVOC	Fluorene	11	40	7.50E-01	7.55E-02	2.10E-03	240	N	0%	98%
SVOC	Fluorene	12	19	2.55E-02	6.82E-03	2.05E-03	240	N	0%	100%
SVOC	Hexachlorobenzene	01	51	1.80E+00	8.23E-02	8.00E-03	0.21	Y	8%	100%
SVOC	Hexachlorobenzene	02	62	9.00E-01	7.53E-02	7.50E-03	0.21	Y	11%	100%
SVOC	Hexachlorobenzene	03	2	3.80E-02	2.28E-02	7.50E-03	0.21	N	0%	100%
SVOC	Hexachlorobenzene	04	19	7.50E-01	1.51E-01	1.00E-02	0.21	Y	16%	100%
SVOC	Hexachlorobenzene	05	28	1.10E-01	3.49E-02	9.50E-03	0.21	N	0%	100%
SVOC	Hexachlorobenzene	06	19	1.80E-01	3.27E-02	9.50E-03	0.21	N	0%	100%
SVOC	Hexachlorobenzene	08	22	5.50E-01	5.14E-02	7.50E-03	0.21	Y	5%	100%
SVOC	Hexachlorobenzene	09	32	3.70E-01	5.85E-02	7.50E-03	0.21	Y	9%	100%
SVOC	Hexachlorobenzene	10	33	1.65E-01	4.72E-02	7.50E-03	0.21	N	0%	100%
SVOC	Hexachlorobenzene	11	40	8.50E+00	2.91E-01	7.50E-03	0.21	Y	10%	100%
SVOC	Hexachlorobenzene	12	20	3.60E-01	2.91E-02	7.50E-03	0.21	Y	5%	100%
SVOC	Hexachlorobutadiene	01	96	7.50E+00	1.31E-01	4.75E-05	1.2	Y	2%	100%
SVOC	Hexachlorobutadiene	02	118	3.80E+00	1.23E-01	4.60E-05	1.2	Y	5%	100%
SVOC	Hexachlorobutadiene	03	4	7.00E-02	1.97E-02	5.00E-05	1.2	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	Hexachlorobutadiene	04	33	1.40E+00	2.14E-01	5.00E-05	1.2	Y	5%	100%
SVOC	Hexachlorobutadiene	05	49	1.60E-01	4.73E-02	4.10E-05	1.2	N	0%	100%
SVOC	Hexachlorobutadiene	06	36	3.40E-01	4.03E-02	4.80E-05	1.2	N	0%	100%
SVOC	Hexachlorobutadiene	08	42	3.70E-01	3.32E-02	4.60E-05	1.2	N	0%	100%
SVOC	Hexachlorobutadiene	09	58	8.00E-01	8.74E-02	4.80E-05	1.2	N	0%	100%
SVOC	Hexachlorobutadiene	10	66	3.75E-01	4.08E-02	4.60E-05	1.2	N	0%	100%
SVOC	Hexachlorobutadiene	11	74	1.60E+01	2.92E-01	4.10E-05	1.2	Y	7%	100%
SVOC	Hexachlorobutadiene	12	36	3.05E-01	2.18E-02	4.25E-05	1.2	N	0%	100%
SVOC	Hexachlorocyclopentadiene	01	49	3.85E+00	1.57E-01	5.00E-03	0.18	Y	10%	100%
SVOC	Hexachlorocyclopentadiene	02	58	1.90E+00	1.47E-01	5.00E-03	0.18	Y	23%	100%
SVOC	Hexachlorocyclopentadiene	03	2	7.00E-02	3.75E-02	5.00E-03	0.18	N	0%	100%
SVOC	Hexachlorocyclopentadiene	04	18	1.40E+00	2.41E-01	1.05E-02	0.18	Y	44%	100%
SVOC	Hexachlorocyclopentadiene	05	28	1.65E-01	5.73E-02	1.00E-02	0.18	N	0%	100%
SVOC	Hexachlorocyclopentadiene	06	19	3.40E-01	6.04E-02	1.00E-02	0.18	Y	5%	100%
SVOC	Hexachlorocyclopentadiene	08	22	8.50E-01	8.12E-02	5.00E-03	0.18	Y	9%	100%
SVOC	Hexachlorocyclopentadiene	09	31	7.00E-01	9.33E-02	5.00E-03	0.18	Y	13%	100%
SVOC	Hexachlorocyclopentadiene	10	33	2.45E-01	7.51E-02	5.00E-03	0.18	Y	6%	100%
SVOC	Hexachlorocyclopentadiene	11	40	1.60E+01	5.19E-01	5.00E-03	0.18	Y	15%	100%
SVOC	Hexachlorocyclopentadiene	12	20	4.60E-01	3.59E-02	5.00E-03	0.18	Y	5%	100%
SVOC	Hexachloroethane	01	51	1.10E+01	3.07E-01	9.00E-03	1.8	Y	2%	100%
SVOC	Hexachloroethane	02	62	5.50E+00	2.97E-01	8.50E-03	1.8	Y	5%	100%
SVOC	Hexachloroethane	03	2	7.00E-02	3.93E-02	8.50E-03	1.8	N	0%	100%
SVOC	Hexachloroethane	04	18	1.40E+00	3.46E-01	7.00E-02	1.8	N	0%	100%
SVOC	Hexachloroethane	05	28	3.40E-01	1.08E-01	7.00E-02	1.8	N	0%	100%
SVOC	Hexachloroethane	06	19	3.40E-01	8.97E-02	7.00E-02	1.8	N	0%	100%
SVOC	Hexachloroethane	08	21	5.00E-01	9.90E-02	8.50E-03	1.8	N	0%	100%
SVOC	Hexachloroethane	09	32	1.75E+00	1.97E-01	8.50E-03	1.8	N	0%	100%
SVOC	Hexachloroethane	10	33	5.50E-01	1.04E-01	8.50E-03	1.8	N	0%	100%
SVOC	Hexachloroethane	11	40	1.60E+01	6.86E-01	8.50E-03	1.8	Y	5%	100%
SVOC	Hexachloroethane	12	20	3.30E-01	4.94E-02	8.50E-03	1.8	N	0%	100%
SVOC	Indeno(1,2,3-c,d)pyrene	01	51	2.65E+00	6.87E-02	1.25E-03	0.16	Y	2%	100%
SVOC	Indeno(1,2,3-c,d)pyrene	02	62	1.30E+00	6.33E-02	2.05E-03	0.16	Y	8%	100%
SVOC	Indeno(1,2,3-c,d)pyrene	03	2	5.50E-03	3.83E-03	2.15E-03	0.16	N	0%	100%
SVOC	Indeno(1,2,3-c,d)pyrene	04	19	6.50E-01	1.42E-01	2.10E-03	0.16	Y	16%	79%
SVOC	Indeno(1,2,3-c,d)pyrene	05	28	1.35E-01	2.62E-02	2.05E-03	0.16	N	0%	100%
SVOC	Indeno(1,2,3-c,d)pyrene	06	19	1.30E-01	1.54E-02	2.05E-03	0.16	N	0%	89%
SVOC	Indeno(1,2,3-c,d)pyrene	08	22	6.50E-01	5.49E-02	2.10E-03	0.16	Y	5%	100%
SVOC	Indeno(1,2,3-c,d)pyrene	09	32	2.30E-01	3.53E-02	2.05E-03	0.16	Y	9%	94%
SVOC	Indeno(1,2,3-c,d)pyrene	10	33	2.00E-01	4.02E-02	2.10E-03	0.16	Y	3%	97%
SVOC	Indeno(1,2,3-c,d)pyrene	11	40	4.80E-01	5.41E-02	2.10E-03	0.16	Y	8%	98%
SVOC	Indeno(1,2,3-c,d)pyrene	12	19	1.80E-02	6.56E-03	2.05E-03	0.16	N	0%	100%
SVOC	Isophorone	01	51	2.40E+00	9.16E-02	7.50E-03	570	N	0%	100%
SVOC	Isophorone	02	62	1.20E+00	8.55E-02	7.00E-03	570	N	0%	100%
SVOC	Isophorone	03	2	3.65E-02	2.18E-02	7.00E-03	570	N	0%	100%
SVOC	Isophorone	04	19	7.00E-01	1.55E-01	1.05E-02	570	N	0%	100%
SVOC	Isophorone	05	28	1.10E-01	3.59E-02	1.00E-02	570	N	0%	100%
SVOC	Isophorone	06	19	1.70E-01	3.26E-02	1.00E-02	570	N	0%	100%
SVOC	Isophorone	08	22	5.50E-01	5.33E-02	7.00E-03	570	N	0%	100%
SVOC	Isophorone	09	32	3.55E-01	5.78E-02	7.00E-03	570	N	0%	100%
SVOC	Isophorone	10	33	1.65E-01	4.76E-02	7.00E-03	570	N	0%	100%
SVOC	Isophorone	11	40	8.00E+00	2.79E-01	7.00E-03	570	N	0%	100%
SVOC	Isophorone	12	20	3.05E-01	2.60E-02	7.00E-03	570	N	0%	100%
SVOC	Nitrobenzene	01	51	5.50E+00	1.67E-01	8.50E-03	5.1	Y	2%	100%
SVOC	Nitrobenzene	02	62	2.65E+00	1.59E-01	8.00E-03	5.1	N	0%	100%
SVOC	Nitrobenzene	03	2	3.80E-02	2.30E-02	8.00E-03	5.1	N	0%	100%
SVOC	Nitrobenzene	04	19	7.50E-01	2.08E-01	3.65E-02	5.1	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	Nitrobenzene	05	28	2.75E-01	7.32E-02	3.60E-02	5.1	N	0%	100%
SVOC	Nitrobenzene	06	19	1.80E-01	5.22E-02	3.60E-02	5.1	N	0%	100%
SVOC	Nitrobenzene	08	22	6.50E-01	9.31E-02	8.00E-03	5.1	N	0%	100%
SVOC	Nitrobenzene	09	32	1.45E+00	1.44E-01	8.00E-03	5.1	N	0%	100%
SVOC	Nitrobenzene	10	33	2.60E-01	7.26E-02	8.00E-03	5.1	N	0%	100%
SVOC	Nitrobenzene	11	40	8.50E+00	4.21E-01	8.00E-03	5.1	Y	3%	100%
SVOC	Nitrobenzene	12	20	3.60E-01	4.31E-02	8.00E-03	5.1	N	0%	100%
SVOC	N-Nitrosodimethylamine	01	14	9.50E-03	8.64E-03	8.50E-03	0.002	Y	100%	100%
SVOC	N-Nitrosodimethylamine	02	26	1.70E-02	8.69E-03	8.00E-03	0.002	Y	100%	100%
SVOC	N-Nitrosodimethylamine	03	1	8.00E-03	8.00E-03	8.00E-03	0.002	Y	100%	100%
SVOC	N-Nitrosodimethylamine	08	1	8.00E-03	8.00E-03	8.00E-03	0.002	Y	100%	100%
SVOC	N-Nitrosodimethylamine	09	11	4.05E-02	1.10E-02	8.00E-03	0.002	Y	100%	100%
SVOC	N-Nitrosodimethylamine	10	1	8.00E-03	8.00E-03	8.00E-03	0.002	Y	100%	100%
SVOC	N-Nitrosodimethylamine	11	3	8.00E-03	8.00E-03	8.00E-03	0.002	Y	100%	100%
SVOC	N-Nitrosodimethylamine	12	12	8.00E-03	8.00E-03	8.00E-03	0.002	Y	100%	100%
SVOC	N-Nitroso-di-n-propylamine	01	51	3.40E+00	1.16E-01	7.50E-03	0.078	Y	10%	100%
SVOC	N-Nitroso-di-n-propylamine	02	62	1.65E+00	1.08E-01	7.50E-03	0.078	Y	21%	100%
SVOC	N-Nitroso-di-n-propylamine	03	2	3.80E-02	2.28E-02	7.50E-03	0.078	N	0%	100%
SVOC	N-Nitroso-di-n-propylamine	04	19	7.50E-01	1.78E-01	1.05E-02	0.078	Y	63%	100%
SVOC	N-Nitroso-di-n-propylamine	05	28	1.25E-01	4.03E-02	1.05E-02	0.078	Y	11%	100%
SVOC	N-Nitroso-di-n-propylamine	06	19	1.80E-01	3.54E-02	1.05E-02	0.078	Y	5%	100%
SVOC	N-Nitroso-di-n-propylamine	08	22	6.50E-01	6.25E-02	7.50E-03	0.078	Y	18%	100%
SVOC	N-Nitroso-di-n-propylamine	09	32	3.70E-01	6.04E-02	7.50E-03	0.078	Y	22%	100%
SVOC	N-Nitroso-di-n-propylamine	10	33	1.90E-01	5.38E-02	7.50E-03	0.078	Y	24%	100%
SVOC	N-Nitroso-di-n-propylamine	11	40	8.50E+00	2.98E-01	7.50E-03	0.078	Y	30%	100%
SVOC	N-Nitroso-di-n-propylamine	12	20	3.60E-01	2.93E-02	7.50E-03	0.078	Y	5%	100%
SVOC	N-Nitrosodiphenylamine	01	51	2.90E+00	1.15E-01	8.50E-03	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	02	62	1.45E+00	1.09E-01	8.50E-03	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	03	2	4.35E-02	2.60E-02	8.50E-03	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	04	19	8.50E-01	1.74E-01	2.70E-02	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	05	28	1.70E-01	5.39E-02	2.80E-02	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	06	19	2.05E-01	4.60E-02	2.70E-02	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	08	22	5.00E-01	6.60E-02	8.50E-03	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	09	32	9.00E-01	1.09E-01	8.50E-03	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	10	33	1.50E-01	5.73E-02	8.50E-03	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	11	40	9.50E+00	3.85E-01	8.50E-03	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	12	20	4.10E-01	4.02E-02	8.50E-03	110	N	0%	100%
SVOC	Pentachlorophenol	01	51	6.00E+00	2.22E-01	6.00E-03	1	Y	2%	100%
SVOC	Pentachlorophenol	02	62	2.95E+00	2.05E-01	6.00E-03	1	Y	7%	100%
SVOC	Pentachlorophenol	03	2	8.00E-02	4.30E-02	6.00E-03	1	N	0%	100%
SVOC	Pentachlorophenol	04	18	1.60E+00	2.79E-01	4.15E-02	1	Y	6%	100%
SVOC	Pentachlorophenol	05	28	2.05E-01	7.91E-02	4.10E-02	1	N	0%	100%
SVOC	Pentachlorophenol	06	19	3.85E-01	7.99E-02	4.05E-02	1	N	0%	100%
SVOC	Pentachlorophenol	08	22	5.50E-01	8.72E-02	6.00E-03	1	N	0%	100%
SVOC	Pentachlorophenol	09	32	1.05E+00	1.58E-01	6.00E-03	1	Y	3%	97%
SVOC	Pentachlorophenol	10	33	2.90E-01	8.13E-02	6.00E-03	1	N	0%	100%
SVOC	Pentachlorophenol	11	39	1.80E+01	6.14E-01	6.00E-03	1	Y	8%	100%
SVOC	Pentachlorophenol	12	20	7.50E-01	6.11E-02	6.00E-03	1	N	0%	100%
SVOC	Phenanthrene	01	51	1.65E+00	4.73E-02	1.00E-03	1800	N	0%	98%
SVOC	Phenanthrene	02	62	4.00E+00	1.37E-01	2.05E-03	1800	N	0%	89%
SVOC	Phenanthrene	03	2	7.00E-03	4.58E-03	2.15E-03	1800	N	0%	100%
SVOC	Phenanthrene	04	19	2.10E+00	2.38E-01	2.10E-03	1800	N	0%	68%
SVOC	Phenanthrene	05	28	9.00E-02	2.13E-02	2.05E-03	1800	N	0%	96%
SVOC	Phenanthrene	06	19	3.20E+00	2.12E-01	2.05E-03	1800	N	0%	79%
SVOC	Phenanthrene	08	22	4.60E-01	4.20E-02	2.10E-03	1800	N	0%	95%
SVOC	Phenanthrene	09	32	7.70E-01	5.43E-02	2.05E-03	1800	N	0%	91%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	Phenanthrene	10	33	1.35E-01	2.99E-02	2.10E-03	1800	N	0%	91%
SVOC	Phenanthrene	11	40	1.60E+00	9.98E-02	2.10E-03	1800	N	0%	95%
SVOC	Phenanthrene	12	19	2.25E-02	8.27E-03	2.05E-03	1800	N	0%	100%
SVOC	Phenol	01	51	2.90E+00	1.19E-01	6.50E-03	1900	N	0%	100%
SVOC	Phenol	02	62	1.40E+00	1.10E-01	6.00E-03	1900	N	0%	100%
SVOC	Phenol	03	2	4.90E-02	2.75E-02	6.00E-03	1900	N	0%	100%
SVOC	Phenol	04	18	9.50E-01	1.79E-01	2.65E-02	1900	N	0%	100%
SVOC	Phenol	05	28	1.40E-01	5.27E-02	2.80E-02	1900	N	0%	100%
SVOC	Phenol	06	19	2.30E-01	4.78E-02	2.70E-02	1900	N	0%	100%
SVOC	Phenol	08	22	5.50E-01	6.63E-02	6.00E-03	1900	N	0%	100%
SVOC	Phenol	09	32	7.00E-01	9.99E-02	6.00E-03	1900	N	0%	100%
SVOC	Phenol	10	33	1.65E-01	5.95E-02	6.00E-03	1900	N	0%	100%
SVOC	Phenol	11	39	1.10E+01	3.83E-01	6.00E-03	1900	N	0%	100%
SVOC	Phenol	12	20	4.60E-01	3.97E-02	6.00E-03	1900	N	0%	100%
SVOC	Pyrene	01	51	2.10E+00	5.74E-02	1.00E-03	180	N	0%	94%
SVOC	Pyrene	02	62	1.00E+00	5.42E-02	2.05E-03	180	N	0%	93%
SVOC	Pyrene	03	2	6.00E-03	4.08E-03	2.15E-03	180	N	0%	100%
SVOC	Pyrene	04	19	2.60E+00	2.88E-01	2.10E-03	180	N	0%	63%
SVOC	Pyrene	05	28	8.00E-02	2.23E-02	2.05E-03	180	N	0%	86%
SVOC	Pyrene	06	19	2.60E+00	1.73E-01	2.05E-03	180	N	0%	68%
SVOC	Pyrene	08	22	4.05E-01	3.95E-02	2.10E-03	180	N	0%	95%
SVOC	Pyrene	09	32	1.10E+00	7.04E-02	2.05E-03	180	N	0%	91%
SVOC	Pyrene	10	33	1.20E-01	2.88E-02	2.10E-03	180	N	0%	91%
SVOC	Pyrene	11	40	6.00E-01	7.75E-02	2.10E-03	180	N	0%	93%
SVOC	Pyrene	12	19	2.30E-02	7.69E-03	2.05E-03	180	N	0%	100%
TPH	Diesel Range Organics (C13-C22)	01	56	1.90E+04	4.80E+02	4.30E-01	8.2	Y	27%	48%
TPH	Diesel Range Organics (C13-C22)	02	89	1.60E+04	6.32E+02	4.25E-01	8.2	Y	41%	38%
TPH	Diesel Range Organics (C13-C22)	03	2	6.70E+00	3.57E+00	4.35E-01	8.2	N	0%	50%
TPH	Diesel Range Organics (C13-C22)	04	25	3.10E+03	2.64E+02	4.30E-01	8.2	Y	40%	32%
TPH	Diesel Range Organics (C13-C22)	05	34	1.10E+02	1.36E+01	4.30E-01	8.2	Y	24%	47%
TPH	Diesel Range Organics (C13-C22)	06	17	1.60E+03	9.64E+01	4.25E-01	8.2	Y	12%	71%
TPH	Diesel Range Organics (C13-C22)	07	2	1.30E+00	1.30E+00	1.30E+00	8.2	N	0%	100%
TPH	Diesel Range Organics (C13-C22)	08	28	2.00E+02	1.01E+01	4.30E-01	8.2	Y	11%	64%
TPH	Diesel Range Organics (C13-C22)	09	37	4.10E+03	2.39E+02	4.25E-01	8.2	Y	43%	43%
TPH	Diesel Range Organics (C13-C22)	10	38	8.60E+02	2.72E+01	4.30E-01	8.2	Y	16%	74%
TPH	Diesel Range Organics (C13-C22)	11	48	5.00E+03	3.79E+02	4.20E-01	8.2	Y	31%	52%
TPH	Diesel Range Organics (C13-C22)	12	20	2.10E+03	1.07E+02	4.25E-01	8.2	Y	10%	25%
TPH	Gasoline Range Organics (C4-C12)	01	55	7.80E+01	3.66E+00	6.00E-02	8.2	Y	4%	93%
TPH	Gasoline Range Organics (C4-C12)	02	85	8.20E+01	2.54E+00	6.00E-02	8.2	Y	5%	93%
TPH	Gasoline Range Organics (C4-C12)	03	2	6.00E-01	3.33E-01	6.50E-02	8.2	N	0%	100%
TPH	Gasoline Range Organics (C4-C12)	04	18	9.00E-01	2.53E-01	6.50E-02	8.2	N	0%	100%
TPH	Gasoline Range Organics (C4-C12)	05	34	2.65E+00	8.70E-01	6.50E-02	8.2	N	0%	100%
TPH	Gasoline Range Organics (C4-C12)	06	16	2.10E+00	5.12E-01	6.50E-02	8.2	N	0%	100%
TPH	Gasoline Range Organics (C4-C12)	07	2	6.50E-02	6.25E-02	6.00E-02	8.2	N	0%	100%
TPH	Gasoline Range Organics (C4-C12)	08	28	2.65E+00	1.46E+00	6.00E-02	8.2	N	0%	100%
TPH	Gasoline Range Organics (C4-C12)	09	37	7.30E+00	7.04E-01	6.50E-02	8.2	N	0%	92%
TPH	Gasoline Range Organics (C4-C12)	10	38	2.65E+00	5.58E-01	6.50E-02	8.2	N	0%	97%
TPH	Gasoline Range Organics (C4-C12)	11	47	6.10E+02	1.55E+01	5.00E-02	8.2	Y	6%	83%
TPH	Gasoline Range Organics (C4-C12)	12	16	1.15E+00	6.51E-01	6.50E-02	8.2	N	0%	94%
TPH	Motor Oil Range Organics (C23-C40)	01	56	3.00E+03	9.51E+01	1.00E+00	8.2	Y	38%	38%
TPH	Motor Oil Range Organics (C23-C40)	02	89	6.00E+04	1.98E+03	9.50E-01	8.2	Y	61%	16%
TPH	Motor Oil Range Organics (C23-C40)	03	2	4.60E+01	2.35E+01	1.00E+00	8.2	Y	50%	50%
TPH	Motor Oil Range Organics (C23-C40)	04	25	1.30E+04	1.04E+03	9.50E-01	8.2	Y	76%	16%
TPH	Motor Oil Range Organics (C23-C40)	05	34	1.00E+03	1.08E+02	9.50E-01	8.2	Y	47%	38%
TPH	Motor Oil Range Organics (C23-C40)	06	17	1.20E+04	7.20E+02	9.50E-01	8.2	Y	29%	24%
TPH	Motor Oil Range Organics (C23-C40)	07	2	6.20E+00	3.75E+00	1.30E+00	8.2	N	0%	50%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
TPH	Motor Oil Range Organics (C23-C40)	08	28	4.90E+02	4.35E+01	9.50E-01	8.2	Y	43%	32%
TPH	Motor Oil Range Organics (C23-C40)	09	37	2.40E+04	1.59E+03	9.50E-01	8.2	Y	62%	11%
TPH	Motor Oil Range Organics (C23-C40)	10	38	6.40E+02	5.04E+01	9.50E-01	8.2	Y	24%	47%
TPH	Motor Oil Range Organics (C23-C40)	11	48	2.10E+04	1.48E+03	9.50E-01	8.2	Y	50%	29%
TPH	Motor Oil Range Organics (C23-C40)	12	20	1.90E+02	2.68E+01	9.50E-01	8.2	Y	50%	10%
VOC	1,1,1,2-Tetrachloroethane	01	46	5.00E-04	2.18E-04	2.05E-05	2	N	0%	100%
VOC	1,1,1,2-Tetrachloroethane	02	57	1.30E-03	1.90E-04	1.95E-05	2	N	0%	100%
VOC	1,1,1,2-Tetrachloroethane	03	2	4.15E-04	2.19E-04	2.20E-05	2	N	0%	100%
VOC	1,1,1,2-Tetrachloroethane	04	14	6.00E-03	4.81E-04	2.15E-05	2	N	0%	100%
VOC	1,1,1,2-Tetrachloroethane	05	25	5.50E-04	1.55E-04	1.75E-05	2	N	0%	100%
VOC	1,1,1,2-Tetrachloroethane	06	17	6.00E-04	2.59E-04	2.05E-05	2	N	0%	100%
VOC	1,1,1,2-Tetrachloroethane	08	22	6.50E-04	8.98E-05	1.95E-05	2	N	0%	100%
VOC	1,1,1,2-Tetrachloroethane	09	28	6.00E-04	1.73E-04	2.05E-05	2	N	0%	100%
VOC	1,1,1,2-Tetrachloroethane	10	33	5.50E-04	2.25E-04	1.95E-05	2	N	0%	100%
VOC	1,1,1,2-Tetrachloroethane	11	34	5.00E-02	3.03E-03	1.75E-05	2	N	0%	100%
VOC	1,1,1,2-Tetrachloroethane	12	16	4.75E-04	9.44E-05	1.80E-05	2	N	0%	100%
VOC	1,1,1-Trichloroethane	01	46	5.00E-04	2.17E-04	3.40E-05	810	N	0%	100%
VOC	1,1,1-Trichloroethane	02	57	1.30E-03	1.84E-04	3.30E-05	810	N	0%	100%
VOC	1,1,1-Trichloroethane	03	2	4.15E-04	2.26E-04	3.75E-05	810	N	0%	100%
VOC	1,1,1-Trichloroethane	04	14	6.00E-03	4.95E-04	3.65E-05	810	N	0%	100%
VOC	1,1,1-Trichloroethane	05	25	5.50E-04	1.66E-04	2.95E-05	810	N	0%	100%
VOC	1,1,1-Trichloroethane	06	17	6.00E-04	2.68E-04	3.45E-05	810	N	0%	100%
VOC	1,1,1-Trichloroethane	08	22	6.50E-04	1.03E-04	3.30E-05	810	N	0%	100%
VOC	1,1,1-Trichloroethane	09	28	6.00E-04	1.84E-04	3.45E-05	810	N	0%	100%
VOC	1,1,1-Trichloroethane	10	33	5.50E-04	2.26E-04	3.30E-05	810	N	0%	100%
VOC	1,1,1-Trichloroethane	11	34	2.60E-02	1.64E-03	2.95E-05	810	N	0%	100%
VOC	1,1,1-Trichloroethane	12	16	4.75E-04	1.11E-04	3.05E-05	810	N	0%	100%
VOC	1,1,2,2-Tetrachloroethane	01	46	5.00E-04	2.43E-04	4.20E-05	0.6	N	0%	100%
VOC	1,1,2,2-Tetrachloroethane	02	57	2.70E-02	6.88E-04	4.10E-05	0.6	N	0%	96%
VOC	1,1,2,2-Tetrachloroethane	03	2	4.15E-04	2.30E-04	4.55E-05	0.6	N	0%	100%
VOC	1,1,2,2-Tetrachloroethane	04	14	6.00E-03	5.03E-04	4.45E-05	0.6	N	0%	100%
VOC	1,1,2,2-Tetrachloroethane	05	22	5.50E-04	1.88E-04	3.60E-05	0.6	N	0%	100%
VOC	1,1,2,2-Tetrachloroethane	06	17	6.00E-04	2.73E-04	4.20E-05	0.6	N	0%	100%
VOC	1,1,2,2-Tetrachloroethane	08	22	6.50E-04	1.10E-04	4.05E-05	0.6	N	0%	100%
VOC	1,1,2,2-Tetrachloroethane	09	29	6.00E-04	1.85E-04	4.20E-05	0.6	N	0%	100%
VOC	1,1,2,2-Tetrachloroethane	10	33	5.50E-04	2.55E-04	4.05E-05	0.6	N	0%	100%
VOC	1,1,2,2-Tetrachloroethane	11	34	2.60E-02	1.94E-03	3.60E-05	0.6	N	0%	100%
VOC	1,1,2,2-Tetrachloroethane	12	16	4.75E-04	1.23E-04	3.75E-05	0.6	N	0%	100%
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10	3	2.10E-04	2.10E-04	2.10E-04	4000	N	0%	100%
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11	1	2.10E-04	2.10E-04	2.10E-04	4000	N	0%	100%
VOC	1,1,2-Trichloroethane	01	46	5.00E-04	2.70E-04	9.50E-05	0.15	N	0%	100%
VOC	1,1,2-Trichloroethane	02	57	4.75E-03	3.18E-04	9.00E-05	0.15	N	0%	98%
VOC	1,1,2-Trichloroethane	03	2	4.15E-04	2.60E-04	1.05E-04	0.15	N	0%	100%
VOC	1,1,2-Trichloroethane	04	14	6.00E-03	5.56E-04	1.00E-04	0.15	N	0%	100%
VOC	1,1,2-Trichloroethane	05	25	5.50E-04	2.14E-04	8.00E-05	0.15	N	0%	100%
VOC	1,1,2-Trichloroethane	06	17	6.00E-04	3.07E-04	9.50E-05	0.15	N	0%	100%
VOC	1,1,2-Trichloroethane	08	22	6.50E-04	1.85E-04	9.00E-05	0.15	N	0%	95%
VOC	1,1,2-Trichloroethane	09	29	6.00E-04	2.26E-04	9.50E-05	0.15	N	0%	100%
VOC	1,1,2-Trichloroethane	10	33	5.50E-04	2.82E-04	9.00E-05	0.15	N	0%	100%
VOC	1,1,2-Trichloroethane	11	34	2.60E-02	1.80E-03	8.00E-05	0.15	N	0%	100%
VOC	1,1,2-Trichloroethane	12	16	4.75E-04	1.71E-04	8.50E-05	0.15	N	0%	100%
VOC	1,1-Dichloroethane	01	46	5.00E-04	2.11E-04	2.85E-05	3.6	N	0%	100%
VOC	1,1-Dichloroethane	02	57	1.30E-03	1.79E-04	2.75E-05	3.6	N	0%	100%
VOC	1,1-Dichloroethane	03	2	4.15E-04	2.23E-04	3.15E-05	3.6	N	0%	100%
VOC	1,1-Dichloroethane	04	14	6.00E-03	4.90E-04	3.05E-05	3.6	N	0%	100%
VOC	1,1-Dichloroethane	05	21	5.50E-04	1.85E-04	2.50E-05	3.6	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	1,1-Dichloroethane	06	17	6.00E-04	2.65E-04	2.90E-05	3.6	N	0%	100%
VOC	1,1-Dichloroethane	08	22	6.50E-04	9.79E-05	2.80E-05	3.6	N	0%	100%
VOC	1,1-Dichloroethane	09	29	6.00E-04	1.75E-04	2.90E-05	3.6	N	0%	100%
VOC	1,1-Dichloroethane	10	33	5.50E-04	2.19E-04	2.75E-05	3.6	N	0%	100%
VOC	1,1-Dichloroethane	11	34	2.60E-02	1.63E-03	2.45E-05	3.6	N	0%	100%
VOC	1,1-Dichloroethane	12	16	4.75E-04	9.97E-05	2.55E-05	3.6	N	0%	100%
VOC	1,1-Dichloroethene	01	46	5.00E-04	2.25E-04	4.55E-05	23	N	0%	100%
VOC	1,1-Dichloroethene	02	57	7.80E-03	3.98E-04	4.35E-05	23	N	0%	95%
VOC	1,1-Dichloroethene	03	2	4.15E-04	2.33E-04	5.00E-05	23	N	0%	100%
VOC	1,1-Dichloroethene	04	14	6.00E-03	5.06E-04	4.85E-05	23	N	0%	100%
VOC	1,1-Dichloroethene	05	25	5.50E-04	1.75E-04	3.95E-05	23	N	0%	100%
VOC	1,1-Dichloroethene	06	17	6.00E-04	2.75E-04	4.60E-05	23	N	0%	100%
VOC	1,1-Dichloroethene	08	22	6.50E-04	1.14E-04	4.40E-05	23	N	0%	100%
VOC	1,1-Dichloroethene	09	29	6.00E-04	1.87E-04	4.60E-05	23	N	0%	100%
VOC	1,1-Dichloroethene	10	33	5.50E-04	2.41E-04	4.40E-05	23	N	0%	100%
VOC	1,1-Dichloroethene	11	34	5.00E-02	3.08E-03	3.90E-05	23	N	0%	100%
VOC	1,1-Dichloroethene	12	16	4.75E-04	1.18E-04	4.10E-05	23	N	0%	100%
VOC	1,1-Dichloropropene	01	46	5.00E-04	2.00E-04	1.75E-05	1.8	N	0%	98%
VOC	1,1-Dichloropropene	02	57	1.70E-03	1.71E-04	1.65E-05	1.8	N	0%	100%
VOC	1,1-Dichloropropene	03	2	4.15E-04	2.17E-04	1.90E-05	1.8	N	0%	100%
VOC	1,1-Dichloropropene	04	14	6.00E-03	4.78E-04	1.85E-05	1.8	N	0%	100%
VOC	1,1-Dichloropropene	05	25	5.50E-04	1.52E-04	1.50E-05	1.8	N	0%	100%
VOC	1,1-Dichloropropene	06	17	6.00E-04	2.57E-04	1.75E-05	1.8	N	0%	100%
VOC	1,1-Dichloropropene	08	22	6.50E-04	8.70E-05	1.70E-05	1.8	N	0%	100%
VOC	1,1-Dichloropropene	09	28	6.00E-04	1.71E-04	1.75E-05	1.8	N	0%	100%
VOC	1,1-Dichloropropene	10	33	5.50E-04	2.15E-04	1.65E-05	1.8	N	0%	100%
VOC	1,1-Dichloropropene	11	34	2.60E-02	1.64E-03	1.50E-05	1.8	N	0%	100%
VOC	1,1-Dichloropropene	12	16	4.75E-04	8.61E-05	1.55E-05	1.8	N	0%	100%
VOC	1,2,3-Trichlorobenzene	01	46	5.00E-04	2.52E-04	3.35E-05	6.3	N	0%	100%
VOC	1,2,3-Trichlorobenzene	02	57	3.00E-03	2.86E-04	3.20E-05	6.3	N	0%	98%
VOC	1,2,3-Trichlorobenzene	03	2	4.15E-04	2.26E-04	3.65E-05	6.3	N	0%	100%
VOC	1,2,3-Trichlorobenzene	04	14	6.00E-03	4.94E-04	3.55E-05	6.3	N	0%	100%
VOC	1,2,3-Trichlorobenzene	05	25	5.50E-04	1.65E-04	2.90E-05	6.3	N	0%	100%
VOC	1,2,3-Trichlorobenzene	06	17	6.00E-04	2.68E-04	3.35E-05	6.3	N	0%	100%
VOC	1,2,3-Trichlorobenzene	08	22	6.50E-04	1.02E-04	3.25E-05	6.3	N	0%	100%
VOC	1,2,3-Trichlorobenzene	09	28	6.00E-04	1.83E-04	3.35E-05	6.3	N	0%	100%
VOC	1,2,3-Trichlorobenzene	10	33	6.00E-04	3.02E-04	3.20E-05	6.3	N	0%	100%
VOC	1,2,3-Trichlorobenzene	11	34	5.00E-02	3.06E-03	2.85E-05	6.3	N	0%	100%
VOC	1,2,3-Trichlorobenzene	12	16	5.50E-04	1.22E-04	3.00E-05	6.3	N	0%	100%
VOC	1,2,3-Trichloropropane	01	46	8.00E-04	3.01E-04	5.50E-05	0.0051	N	0%	100%
VOC	1,2,3-Trichloropropane	02	57	1.50E-03	3.11E-04	5.50E-05	0.0051	N	0%	98%
VOC	1,2,3-Trichloropropane	03	2	4.15E-04	2.38E-04	6.00E-05	0.0051	N	0%	100%
VOC	1,2,3-Trichloropropane	04	14	6.00E-03	5.17E-04	6.00E-05	0.0051	Y	7%	100%
VOC	1,2,3-Trichloropropane	05	21	5.50E-04	2.04E-04	4.85E-05	0.0051	N	0%	100%
VOC	1,2,3-Trichloropropane	06	17	6.00E-04	2.82E-04	5.50E-05	0.0051	N	0%	100%
VOC	1,2,3-Trichloropropane	08	21	6.50E-04	1.27E-04	5.50E-05	0.0051	N	0%	100%
VOC	1,2,3-Trichloropropane	09	29	6.00E-04	1.96E-04	5.50E-05	0.0051	N	0%	100%
VOC	1,2,3-Trichloropropane	10	33	9.00E-04	3.24E-04	5.50E-05	0.0051	N	0%	100%
VOC	1,2,3-Trichloropropane	11	34	5.00E-02	3.09E-03	4.85E-05	0.0051	Y	6%	100%
VOC	1,2,3-Trichloropropane	12	16	5.50E-04	1.42E-04	5.00E-05	0.0051	N	0%	100%
VOC	1,2,4-Trichlorobenzene	01	97	6.50E+00	1.17E-01	4.15E-05	5.8	Y	2%	100%
VOC	1,2,4-Trichlorobenzene	02	118	3.25E+00	1.09E-01	3.95E-05	5.8	N	0%	99%
VOC	1,2,4-Trichlorobenzene	03	4	7.00E-02	1.95E-02	4.50E-05	5.8	N	0%	100%
VOC	1,2,4-Trichlorobenzene	04	33	1.40E+00	2.04E-01	4.40E-05	5.8	N	0%	100%
VOC	1,2,4-Trichlorobenzene	05	49	1.30E-01	4.26E-02	3.55E-05	5.8	N	0%	100%
VOC	1,2,4-Trichlorobenzene	06	36	3.40E-01	3.82E-02	4.20E-05	5.8	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	1,2,4-Trichlorobenzene	08	44	6.50E-01	4.23E-02	4.00E-05	5.8	N	0%	100%
VOC	1,2,4-Trichlorobenzene	09	53	7.00E-01	8.07E-02	4.30E-05	5.8	N	0%	100%
VOC	1,2,4-Trichlorobenzene	10	66	3.15E-01	3.76E-02	4.00E-05	5.8	N	0%	100%
VOC	1,2,4-Trichlorobenzene	11	74	1.60E+01	2.81E-01	3.55E-05	5.8	Y	2%	99%
VOC	1,2,4-Trichlorobenzene	12	36	2.55E-01	1.82E-02	3.70E-05	5.8	N	0%	100%
VOC	1,2,4-Trimethylbenzene	01	46	1.30E-02	5.73E-04	2.50E-05	5.8	N	0%	91%
VOC	1,2,4-Trimethylbenzene	02	57	9.60E-01	1.77E-02	2.45E-05	5.8	N	0%	88%
VOC	1,2,4-Trimethylbenzene	03	2	4.15E-04	2.21E-04	2.70E-05	5.8	N	0%	100%
VOC	1,2,4-Trimethylbenzene	04	14	6.00E-03	4.97E-04	2.65E-05	5.8	N	0%	93%
VOC	1,2,4-Trimethylbenzene	05	25	5.50E-04	2.50E-04	2.40E-05	5.8	N	0%	100%
VOC	1,2,4-Trimethylbenzene	06	17	1.70E-03	3.93E-04	2.50E-05	5.8	N	0%	76%
VOC	1,2,4-Trimethylbenzene	08	21	6.50E-04	1.34E-04	2.40E-05	5.8	N	0%	86%
VOC	1,2,4-Trimethylbenzene	09	27	6.00E-04	1.85E-04	2.50E-05	5.8	N	0%	96%
VOC	1,2,4-Trimethylbenzene	10	33	5.50E-04	2.68E-04	2.40E-05	5.8	N	0%	97%
VOC	1,2,4-Trimethylbenzene	11	34	6.70E+00	2.06E-01	2.15E-05	5.8	Y	3%	94%
VOC	1,2,4-Trimethylbenzene	12	16	4.75E-04	1.06E-04	2.25E-05	5.8	N	0%	100%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	01	46	1.00E-03	5.81E-04	2.75E-04	0.0053	N	0%	100%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	02	57	8.00E-03	6.56E-04	2.60E-04	0.0053	Y	2%	100%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	03	2	8.50E-04	5.75E-04	3.00E-04	0.0053	N	0%	100%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	04	14	1.20E-02	1.19E-03	2.90E-04	0.0053	Y	7%	100%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	05	25	1.60E-03	5.45E-04	2.35E-04	0.0053	N	0%	96%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	06	17	1.15E-03	6.59E-04	2.75E-04	0.0053	N	0%	100%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	08	22	1.30E-03	4.01E-04	2.65E-04	0.0053	N	0%	100%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	09	28	1.20E-03	5.26E-04	2.75E-04	0.0053	N	0%	100%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	10	33	1.10E-03	6.11E-04	2.65E-04	0.0053	N	0%	100%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	11	34	5.00E-02	4.17E-03	2.35E-04	0.0053	Y	9%	97%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	12	16	9.50E-04	4.10E-04	2.45E-04	0.0053	N	0%	100%
VOC	1,2-Dibromoethane (EDB)	01	46	5.00E-04	2.34E-04	3.65E-05	0.036	N	0%	100%
VOC	1,2-Dibromoethane (EDB)	02	57	1.55E-03	2.12E-04	3.50E-05	0.036	N	0%	100%
VOC	1,2-Dibromoethane (EDB)	03	2	4.15E-04	2.28E-04	4.00E-05	0.036	N	0%	100%
VOC	1,2-Dibromoethane (EDB)	04	14	6.00E-03	4.98E-04	3.90E-05	0.036	N	0%	100%
VOC	1,2-Dibromoethane (EDB)	05	25	5.50E-04	1.68E-04	3.15E-05	0.036	N	0%	100%
VOC	1,2-Dibromoethane (EDB)	06	17	6.00E-04	2.70E-04	3.70E-05	0.036	N	0%	100%
VOC	1,2-Dibromoethane (EDB)	08	22	6.50E-04	1.05E-04	3.55E-05	0.036	N	0%	100%
VOC	1,2-Dibromoethane (EDB)	09	27	6.00E-04	1.91E-04	3.80E-05	0.036	N	0%	100%
VOC	1,2-Dibromoethane (EDB)	10	33	5.50E-04	2.43E-04	3.55E-05	0.036	N	0%	100%
VOC	1,2-Dibromoethane (EDB)	11	34	2.60E-02	1.65E-03	3.15E-05	0.036	N	0%	100%
VOC	1,2-Dibromoethane (EDB)	12	16	4.75E-04	1.17E-04	3.30E-05	0.036	N	0%	100%
VOC	1,2-Dichloroethane	01	46	5.00E-04	2.37E-04	5.00E-05	0.46	N	0%	100%
VOC	1,2-Dichloroethane	02	57	1.30E-03	2.11E-04	4.95E-05	0.46	N	0%	100%
VOC	1,2-Dichloroethane	03	2	4.15E-04	2.35E-04	5.50E-05	0.46	N	0%	100%
VOC	1,2-Dichloroethane	04	14	6.00E-03	5.12E-04	5.50E-05	0.46	N	0%	100%
VOC	1,2-Dichloroethane	05	25	5.50E-04	1.80E-04	4.45E-05	0.46	N	0%	100%
VOC	1,2-Dichloroethane	06	17	6.00E-04	2.79E-04	5.00E-05	0.46	N	0%	100%
VOC	1,2-Dichloroethane	08	22	6.50E-04	1.20E-04	5.00E-05	0.46	N	0%	100%
VOC	1,2-Dichloroethane	09	29	6.00E-04	1.92E-04	5.00E-05	0.46	N	0%	100%
VOC	1,2-Dichloroethane	10	33	5.50E-04	2.47E-04	5.00E-05	0.46	N	0%	100%
VOC	1,2-Dichloroethane	11	34	2.60E-02	1.65E-03	4.45E-05	0.46	N	0%	100%
VOC	1,2-Dichloroethane	12	16	4.75E-04	1.30E-04	4.60E-05	0.46	N	0%	100%
VOC	1,2-Dichloropropane	01	46	5.00E-04	2.11E-04	3.15E-05	1	N	0%	100%
VOC	1,2-Dichloropropane	02	56	1.85E-03	1.89E-04	3.05E-05	1	N	0%	98%
VOC	1,2-Dichloropropane	03	2	4.15E-04	2.25E-04	3.45E-05	1	N	0%	100%
VOC	1,2-Dichloropropane	04	14	6.00E-03	4.93E-04	3.35E-05	1	N	0%	100%
VOC	1,2-Dichloropropane	05	21	5.50E-04	1.87E-04	2.75E-05	1	N	0%	100%
VOC	1,2-Dichloropropane	06	17	6.00E-04	2.67E-04	3.20E-05	1	N	0%	100%
VOC	1,2-Dichloropropane	08	22	6.50E-04	1.01E-04	3.05E-05	1	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	1,2-Dichloropropane	09	27	6.00E-04	1.87E-04	3.30E-05	1	N	0%	100%
VOC	1,2-Dichloropropane	10	33	5.50E-04	2.22E-04	3.05E-05	1	N	0%	100%
VOC	1,2-Dichloropropane	11	34	2.60E-02	1.65E-03	2.70E-05	1	N	0%	100%
VOC	1,2-Dichloropropane	12	16	4.75E-04	1.12E-04	2.85E-05	1	N	0%	100%
VOC	1,2-Dimethylbenzene (o-Xylene)	01	19	6.40E-03	7.52E-04	3.70E-04	65	N	0%	95%
VOC	1,2-Dimethylbenzene (o-Xylene)	02	12	6.50E-04	4.98E-04	4.00E-04	65	N	0%	100%
VOC	1,2-Dimethylbenzene (o-Xylene)	03	1	4.15E-04	4.15E-04	4.15E-04	65	N	0%	100%
VOC	1,2-Dimethylbenzene (o-Xylene)	04	2	6.00E-03	3.23E-03	4.55E-04	65	N	0%	100%
VOC	1,2-Dimethylbenzene (o-Xylene)	05	7	5.50E-04	4.94E-04	4.25E-04	65	N	0%	100%
VOC	1,2-Dimethylbenzene (o-Xylene)	06	8	6.00E-04	5.24E-04	4.60E-04	65	N	0%	100%
VOC	1,2-Dimethylbenzene (o-Xylene)	08	3	6.50E-04	5.17E-04	4.35E-04	65	N	0%	100%
VOC	1,2-Dimethylbenzene (o-Xylene)	09	9	6.00E-04	4.90E-04	4.15E-04	65	N	0%	100%
VOC	1,2-Dimethylbenzene (o-Xylene)	10	15	5.50E-04	4.34E-04	2.05E-04	65	N	0%	100%
VOC	1,2-Dimethylbenzene (o-Xylene)	11	5	8.30E-01	1.71E-01	2.30E-04	65	N	0%	80%
VOC	1,2-Dimethylbenzene (o-Xylene)	12	3	4.75E-04	3.95E-04	2.65E-04	65	N	0%	100%
VOC	1,3,5-Trimethylbenzene (mesitylene)	01	46	9.70E-03	4.31E-04	2.75E-05	78	N	0%	98%
VOC	1,3,5-Trimethylbenzene (mesitylene)	02	57	2.70E-01	5.13E-03	2.70E-05	78	N	0%	91%
VOC	1,3,5-Trimethylbenzene (mesitylene)	03	2	4.15E-04	2.23E-04	3.00E-05	78	N	0%	100%
VOC	1,3,5-Trimethylbenzene (mesitylene)	04	14	6.00E-03	4.91E-04	2.90E-05	78	N	0%	93%
VOC	1,3,5-Trimethylbenzene (mesitylene)	05	25	5.50E-04	1.72E-04	2.35E-05	78	N	0%	100%
VOC	1,3,5-Trimethylbenzene (mesitylene)	06	17	6.00E-04	2.64E-04	2.75E-05	78	N	0%	100%
VOC	1,3,5-Trimethylbenzene (mesitylene)	08	22	6.50E-04	9.66E-05	2.65E-05	78	N	0%	100%
VOC	1,3,5-Trimethylbenzene (mesitylene)	09	27	6.00E-04	1.84E-04	2.75E-05	78	N	0%	100%
VOC	1,3,5-Trimethylbenzene (mesitylene)	10	33	5.50E-04	2.53E-04	2.65E-05	78	N	0%	97%
VOC	1,3,5-Trimethylbenzene (mesitylene)	11	34	3.50E+00	1.06E-01	2.35E-05	78	N	0%	94%
VOC	1,3,5-Trimethylbenzene (mesitylene)	12	16	4.75E-04	1.03E-04	2.45E-05	78	N	0%	100%
VOC	1,3-Dichloropropane	01	46	5.00E-04	2.27E-04	3.00E-05	160	N	0%	100%
VOC	1,3-Dichloropropane	02	57	1.45E-03	2.04E-04	2.90E-05	160	N	0%	100%
VOC	1,3-Dichloropropane	03	2	4.15E-04	2.24E-04	3.30E-05	160	N	0%	100%
VOC	1,3-Dichloropropane	04	14	6.00E-03	4.91E-04	3.20E-05	160	N	0%	100%
VOC	1,3-Dichloropropane	05	21	5.50E-04	1.86E-04	2.60E-05	160	N	0%	100%
VOC	1,3-Dichloropropane	06	17	6.00E-04	2.66E-04	3.05E-05	160	N	0%	100%
VOC	1,3-Dichloropropane	08	22	6.50E-04	9.91E-05	2.90E-05	160	N	0%	100%
VOC	1,3-Dichloropropane	09	29	6.00E-04	1.75E-04	3.00E-05	160	N	0%	100%
VOC	1,3-Dichloropropane	10	33	5.50E-04	2.40E-04	2.90E-05	160	N	0%	100%
VOC	1,3-Dichloropropane	11	34	2.60E-02	1.64E-03	2.90E-05	160	N	0%	97%
VOC	1,3-Dichloropropane	12	16	4.75E-04	1.09E-04	2.70E-05	160	N	0%	94%
VOC	2-Butanone (MEK)	10	3	2.90E-03	1.53E-03	8.50E-04	2700	N	0%	67%
VOC	2-Butanone (MEK)	11	1	8.50E-04	8.50E-04	8.50E-04	2700	N	0%	100%
VOC	2-Chlorotoluene	01	46	5.00E-04	2.37E-04	2.00E-05	160	N	0%	100%
VOC	2-Chlorotoluene	02	57	1.35E-03	2.15E-04	1.90E-05	160	N	0%	100%
VOC	2-Chlorotoluene	03	2	4.15E-04	2.18E-04	2.15E-05	160	N	0%	100%
VOC	2-Chlorotoluene	04	14	6.00E-03	4.81E-04	2.10E-05	160	N	0%	100%
VOC	2-Chlorotoluene	05	21	5.50E-04	1.79E-04	1.70E-05	160	N	0%	100%
VOC	2-Chlorotoluene	06	17	6.00E-04	2.59E-04	2.00E-05	160	N	0%	100%
VOC	2-Chlorotoluene	08	22	6.50E-04	8.94E-05	1.90E-05	160	N	0%	100%
VOC	2-Chlorotoluene	09	27	6.00E-04	1.78E-04	2.00E-05	160	N	0%	100%
VOC	2-Chlorotoluene	10	33	5.50E-04	2.61E-04	1.90E-05	160	N	0%	100%
VOC	2-Chlorotoluene	11	34	5.00E-02	3.04E-03	1.70E-05	160	N	0%	100%
VOC	2-Chlorotoluene	12	16	4.75E-04	1.04E-04	1.80E-05	160	N	0%	100%
VOC	2-Hexanone	10	3	1.50E-03	1.50E-03	1.50E-03	20	N	0%	100%
VOC	2-Hexanone	11	1	1.50E-03	1.50E-03	1.50E-03	20	N	0%	100%
VOC	4-Chlorotoluene	01	46	5.00E-04	2.35E-04	3.15E-05	160	N	0%	100%
VOC	4-Chlorotoluene	02	57	2.00E-03	2.23E-04	3.05E-05	160	N	0%	100%
VOC	4-Chlorotoluene	03	2	4.15E-04	2.25E-04	3.45E-05	160	N	0%	100%
VOC	4-Chlorotoluene	04	14	6.00E-03	4.93E-04	3.35E-05	160	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	4-Chlorotoluene	05	21	5.50E-04	1.87E-04	2.75E-05	160	N	0%	100%
VOC	4-Chlorotoluene	06	17	6.00E-04	2.67E-04	3.20E-05	160	N	0%	100%
VOC	4-Chlorotoluene	08	22	6.50E-04	1.01E-04	3.05E-05	160	N	0%	100%
VOC	4-Chlorotoluene	09	28	6.00E-04	1.82E-04	3.20E-05	160	N	0%	100%
VOC	4-Chlorotoluene	10	33	5.50E-04	2.64E-04	3.05E-05	160	N	0%	100%
VOC	4-Chlorotoluene	11	34	2.60E-02	1.66E-03	2.70E-05	160	N	0%	100%
VOC	4-Chlorotoluene	12	16	4.75E-04	1.10E-04	2.85E-05	160	N	0%	100%
VOC	4-Methyl-2-Pentanone (MIBK)	10	3	1.10E-03	1.10E-03	1.10E-03	3300	N	0%	100%
VOC	4-Methyl-2-Pentanone (MIBK)	11	1	1.10E-03	1.10E-03	1.10E-03	3300	N	0%	100%
VOC	Acetone	10	3	1.10E-02	7.37E-03	2.10E-03	6100	N	0%	67%
VOC	Acetone	11	1	2.10E-03	2.10E-03	2.10E-03	6100	N	0%	100%
VOC	Benzene	01	46	5.00E-04	2.18E-04	2.40E-05	1.2	N	0%	96%
VOC	Benzene	02	57	3.30E-03	2.29E-04	2.30E-05	1.2	N	0%	95%
VOC	Benzene	03	2	4.15E-04	2.21E-04	2.65E-05	1.2	N	0%	100%
VOC	Benzene	04	14	6.00E-03	4.94E-04	2.55E-05	1.2	N	0%	93%
VOC	Benzene	05	21	5.50E-04	1.87E-04	2.05E-05	1.2	N	0%	100%
VOC	Benzene	06	17	1.40E-03	3.43E-04	2.45E-05	1.2	N	0%	94%
VOC	Benzene	08	22	2.20E-03	1.92E-04	2.35E-05	1.2	N	0%	95%
VOC	Benzene	09	29	6.00E-04	1.76E-04	2.45E-05	1.2	N	0%	97%
VOC	Benzene	10	33	2.60E-03	3.04E-04	2.30E-05	1.2	N	0%	94%
VOC	Benzene	11	34	2.60E-02	1.63E-03	2.05E-05	1.2	N	0%	100%
VOC	Benzene	12	16	4.75E-04	9.56E-05	2.15E-05	1.2	N	0%	100%
VOC	Bromobenzene	01	46	5.00E-04	2.50E-04	4.85E-05	29	N	0%	100%
VOC	Bromobenzene	02	57	1.30E-03	2.30E-04	4.65E-05	29	N	0%	100%
VOC	Bromobenzene	03	2	4.15E-04	2.35E-04	5.50E-05	29	N	0%	100%
VOC	Bromobenzene	04	14	6.00E-03	5.10E-04	5.00E-05	29	N	0%	100%
VOC	Bromobenzene	05	21	5.50E-04	1.99E-04	4.20E-05	29	N	0%	100%
VOC	Bromobenzene	06	17	6.00E-04	2.77E-04	4.90E-05	29	N	0%	100%
VOC	Bromobenzene	08	22	6.50E-04	1.17E-04	4.70E-05	29	N	0%	100%
VOC	Bromobenzene	09	28	6.00E-04	1.95E-04	4.90E-05	29	N	0%	100%
VOC	Bromobenzene	10	33	5.50E-04	2.76E-04	4.70E-05	29	N	0%	100%
VOC	Bromobenzene	11	34	5.00E-02	3.07E-03	4.20E-05	29	N	0%	100%
VOC	Bromobenzene	12	16	4.75E-04	1.28E-04	4.35E-05	29	N	0%	100%
VOC	Bromochloromethane	01	46	5.00E-04	2.51E-04	9.00E-05	15	N	0%	100%
VOC	Bromochloromethane	02	57	4.15E-03	2.76E-04	8.50E-05	15	N	0%	100%
VOC	Bromochloromethane	03	2	4.15E-04	2.58E-04	1.00E-04	15	N	0%	100%
VOC	Bromochloromethane	04	14	6.00E-03	5.52E-04	9.50E-05	15	N	0%	100%
VOC	Bromochloromethane	05	25	5.50E-04	2.12E-04	8.00E-05	15	N	0%	100%
VOC	Bromochloromethane	06	17	6.00E-04	3.05E-04	9.00E-05	15	N	0%	100%
VOC	Bromochloromethane	08	22	6.50E-04	1.57E-04	9.00E-05	15	N	0%	100%
VOC	Bromochloromethane	09	29	6.00E-04	2.23E-04	9.00E-05	15	N	0%	100%
VOC	Bromochloromethane	10	33	5.50E-04	2.70E-04	9.00E-05	15	N	0%	100%
VOC	Bromochloromethane	11	34	5.00E-02	3.19E-03	8.00E-05	15	N	0%	100%
VOC	Bromochloromethane	12	16	4.75E-04	1.69E-04	8.00E-05	15	N	0%	100%
VOC	Bromodichloromethane	01	46	5.00E-04	2.53E-04	1.05E-04	0.29	N	0%	100%
VOC	Bromodichloromethane	02	57	8.00E-03	3.53E-04	1.00E-04	0.29	N	0%	100%
VOC	Bromodichloromethane	03	2	4.15E-04	2.65E-04	1.15E-04	0.29	N	0%	100%
VOC	Bromodichloromethane	04	14	6.00E-03	5.66E-04	1.10E-04	0.29	N	0%	100%
VOC	Bromodichloromethane	05	25	5.50E-04	2.23E-04	9.00E-05	0.29	N	0%	100%
VOC	Bromodichloromethane	06	17	6.00E-04	3.14E-04	1.05E-04	0.29	N	0%	100%
VOC	Bromodichloromethane	08	22	6.50E-04	1.71E-04	1.00E-04	0.29	N	0%	100%
VOC	Bromodichloromethane	09	29	6.00E-04	2.34E-04	1.05E-04	0.29	N	0%	100%
VOC	Bromodichloromethane	10	33	5.50E-04	2.58E-04	7.50E-05	0.29	N	0%	100%
VOC	Bromodichloromethane	11	34	2.60E-02	1.91E-03	7.50E-05	0.29	N	0%	100%
VOC	Bromodichloromethane	12	16	4.75E-04	1.68E-04	9.50E-05	0.29	N	0%	100%
VOC	Bromoform	01	46	1.00E-03	4.41E-04	8.50E-05	19	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	Bromoform	02	57	1.45E-03	3.61E-04	8.50E-05	19	N	0%	100%
VOC	Bromoform	03	2	8.50E-04	4.73E-04	9.50E-05	19	N	0%	100%
VOC	Bromoform	04	14	1.20E-02	1.01E-03	9.50E-05	19	N	0%	100%
VOC	Bromoform	05	25	1.15E-03	3.46E-04	7.50E-05	19	N	0%	100%
VOC	Bromoform	06	17	1.15E-03	5.41E-04	9.00E-05	19	N	0%	100%
VOC	Bromoform	08	22	1.30E-03	2.46E-04	8.50E-05	19	N	0%	95%
VOC	Bromoform	09	27	1.20E-03	3.94E-04	9.00E-05	19	N	0%	100%
VOC	Bromoform	10	33	1.10E-03	4.41E-04	8.50E-05	19	N	0%	100%
VOC	Bromoform	11	34	5.00E-02	3.13E-03	7.50E-05	19	N	0%	100%
VOC	Bromoform	12	16	9.50E-04	2.21E-04	8.00E-05	19	N	0%	100%
VOC	Bromomethane	01	46	5.00E-04	2.69E-04	7.50E-05	0.68	N	0%	100%
VOC	Bromomethane	02	57	1.70E-01	3.27E-03	7.00E-05	0.68	N	0%	100%
VOC	Bromomethane	03	2	4.15E-04	2.48E-04	8.00E-05	0.68	N	0%	100%
VOC	Bromomethane	04	14	6.00E-03	5.35E-04	8.00E-05	0.68	N	0%	100%
VOC	Bromomethane	05	25	5.50E-04	1.98E-04	6.50E-05	0.68	N	0%	100%
VOC	Bromomethane	06	17	6.00E-04	2.94E-04	7.50E-05	0.68	N	0%	100%
VOC	Bromomethane	08	22	6.50E-04	1.43E-04	7.50E-05	0.68	N	0%	100%
VOC	Bromomethane	09	26	6.00E-04	2.26E-04	7.50E-05	0.68	N	0%	100%
VOC	Bromomethane	10	33	1.60E-03	3.82E-04	7.50E-05	0.68	N	0%	97%
VOC	Bromomethane	11	34	5.00E-02	4.54E-03	6.50E-05	0.68	N	0%	100%
VOC	Bromomethane	12	16	4.85E-04	1.55E-04	6.50E-05	0.68	N	0%	100%
VOC	Carbon disulfide	10	3	1.00E-03	1.00E-03	1.00E-03	77	N	0%	100%
VOC	Carbon disulfide	11	1	1.00E-03	1.00E-03	1.00E-03	77	N	0%	100%
VOC	Carbon tetrachloride	01	46	5.00E-04	2.28E-04	3.20E-05	0.65	N	0%	100%
VOC	Carbon tetrachloride	02	57	1.30E-03	2.05E-04	3.10E-05	0.65	N	0%	100%
VOC	Carbon tetrachloride	03	2	4.15E-04	2.25E-04	3.50E-05	0.65	N	0%	100%
VOC	Carbon tetrachloride	04	14	6.00E-03	4.93E-04	3.40E-05	0.65	N	0%	100%
VOC	Carbon tetrachloride	05	25	5.50E-04	1.64E-04	2.75E-05	0.65	N	0%	100%
VOC	Carbon tetrachloride	06	17	6.00E-04	2.67E-04	3.25E-05	0.65	N	0%	100%
VOC	Carbon tetrachloride	08	22	6.50E-04	1.01E-04	3.10E-05	0.65	N	0%	100%
VOC	Carbon tetrachloride	09	28	6.00E-04	1.82E-04	3.25E-05	0.65	N	0%	100%
VOC	Carbon tetrachloride	10	33	5.50E-04	2.38E-04	3.10E-05	0.65	N	0%	100%
VOC	Carbon tetrachloride	11	34	5.00E-02	3.05E-03	2.75E-05	0.65	N	0%	100%
VOC	Carbon tetrachloride	12	16	4.75E-04	1.03E-04	2.85E-05	0.65	N	0%	100%
VOC	Chlorobenzene	01	46	5.00E-04	2.21E-04	3.10E-05	28	N	0%	100%
VOC	Chlorobenzene	02	57	1.30E-03	2.07E-04	3.00E-05	28	N	0%	98%
VOC	Chlorobenzene	03	2	4.15E-04	2.25E-04	3.40E-05	28	N	0%	100%
VOC	Chlorobenzene	04	14	6.00E-03	4.92E-04	3.30E-05	28	N	0%	100%
VOC	Chlorobenzene	05	25	5.50E-04	1.63E-04	2.70E-05	28	N	0%	100%
VOC	Chlorobenzene	06	17	6.00E-04	2.66E-04	3.15E-05	28	N	0%	100%
VOC	Chlorobenzene	08	22	6.50E-04	1.00E-04	3.00E-05	28	N	0%	100%
VOC	Chlorobenzene	09	28	6.00E-04	1.82E-04	3.15E-05	28	N	0%	100%
VOC	Chlorobenzene	10	33	5.50E-04	2.38E-04	3.00E-05	28	N	0%	100%
VOC	Chlorobenzene	11	34	2.60E-02	1.64E-03	2.70E-05	28	N	0%	100%
VOC	Chlorobenzene	12	16	4.75E-04	1.03E-04	2.80E-05	28	N	0%	100%
VOC	Chloroethane	01	46	1.00E-03	4.94E-04	1.50E-04	1400	N	0%	100%
VOC	Chloroethane	02	56	3.20E-03	4.61E-04	1.40E-04	1400	N	0%	100%
VOC	Chloroethane	03	2	8.50E-04	5.05E-04	1.60E-04	1400	N	0%	100%
VOC	Chloroethane	04	14	1.20E-02	1.07E-03	1.55E-04	1400	N	0%	100%
VOC	Chloroethane	05	25	1.15E-03	3.94E-04	1.25E-04	1400	N	0%	100%
VOC	Chloroethane	06	17	1.15E-03	5.80E-04	1.50E-04	1400	N	0%	100%
VOC	Chloroethane	08	22	1.30E-03	2.82E-04	1.45E-04	1400	N	0%	100%
VOC	Chloroethane	09	29	1.20E-03	4.21E-04	1.50E-04	1400	N	0%	100%
VOC	Chloroethane	10	32	2.60E-03	5.85E-04	1.45E-04	1400	N	0%	97%
VOC	Chloroethane	11	34	5.00E-02	3.24E-03	1.25E-04	1400	N	0%	100%
VOC	Chloroethane	12	16	9.50E-04	2.98E-04	1.30E-04	1400	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	Chloroform	01	46	5.00E-04	2.26E-04	5.50E-05	0.32	N	0%	100%
VOC	Chloroform	02	57	2.80E-03	2.24E-04	5.00E-05	0.32	N	0%	100%
VOC	Chloroform	03	2	4.15E-04	2.38E-04	6.00E-05	0.32	N	0%	100%
VOC	Chloroform	04	14	6.00E-03	5.15E-04	6.00E-05	0.32	N	0%	100%
VOC	Chloroform	05	25	5.50E-04	1.88E-04	4.65E-05	0.32	N	0%	96%
VOC	Chloroform	06	17	6.00E-04	2.81E-04	5.50E-05	0.32	N	0%	100%
VOC	Chloroform	08	22	6.50E-04	1.22E-04	5.00E-05	0.32	N	0%	100%
VOC	Chloroform	09	29	6.00E-04	1.94E-04	5.50E-05	0.32	N	0%	100%
VOC	Chloroform	10	33	5.50E-04	2.33E-04	5.00E-05	0.32	N	0%	100%
VOC	Chloroform	11	34	2.60E-02	1.70E-03	4.65E-05	0.32	N	0%	100%
VOC	Chloroform	12	16	4.75E-04	1.23E-04	4.85E-05	0.32	N	0%	100%
VOC	Chloromethane	01	46	7.50E-04	5.49E-04	3.70E-04	11	N	0%	100%
VOC	Chloromethane	02	57	4.20E-03	6.69E-04	4.00E-04	11	N	0%	100%
VOC	Chloromethane	03	2	6.00E-04	5.08E-04	4.15E-04	11	N	0%	100%
VOC	Chloromethane	04	14	6.00E-03	1.03E-03	4.55E-04	11	N	0%	100%
VOC	Chloromethane	05	25	8.00E-04	5.96E-04	4.25E-04	11	N	0%	100%
VOC	Chloromethane	06	17	1.15E-03	6.08E-04	4.60E-04	11	N	0%	100%
VOC	Chloromethane	08	22	8.50E-04	6.09E-04	4.35E-04	11	N	0%	100%
VOC	Chloromethane	09	29	8.00E-04	5.95E-04	4.15E-04	11	N	0%	100%
VOC	Chloromethane	10	33	1.80E-03	6.51E-04	4.05E-04	11	N	0%	94%
VOC	Chloromethane	11	34	5.00E-02	3.65E-03	4.35E-04	11	N	0%	97%
VOC	Chloromethane	12	16	7.00E-04	5.95E-04	4.45E-04	11	N	0%	100%
VOC	cis-1,2-Dichloroethene	01	46	5.00E-04	2.19E-04	4.05E-05	16	N	0%	100%
VOC	cis-1,2-Dichloroethene	02	57	1.45E-03	1.87E-04	3.90E-05	16	N	0%	100%
VOC	cis-1,2-Dichloroethene	03	2	4.15E-04	2.30E-04	4.45E-05	16	N	0%	100%
VOC	cis-1,2-Dichloroethene	04	14	6.00E-03	5.01E-04	4.30E-05	16	N	0%	100%
VOC	cis-1,2-Dichloroethene	05	25	5.50E-04	1.71E-04	3.50E-05	16	N	0%	100%
VOC	cis-1,2-Dichloroethene	06	17	6.00E-04	2.72E-04	4.10E-05	16	N	0%	100%
VOC	cis-1,2-Dichloroethene	08	22	6.50E-04	1.09E-04	3.90E-05	16	N	0%	100%
VOC	cis-1,2-Dichloroethene	09	29	6.00E-04	1.84E-04	4.10E-05	16	N	0%	100%
VOC	cis-1,2-Dichloroethene	10	33	5.50E-04	2.39E-04	3.90E-05	16	N	0%	100%
VOC	cis-1,2-Dichloroethene	11	34	2.60E-02	1.65E-03	3.50E-05	16	N	0%	100%
VOC	cis-1,2-Dichloroethene	12	16	4.75E-04	1.21E-04	3.65E-05	16	N	0%	100%
VOC	Dibromochloromethane	01	46	5.00E-04	2.25E-04	3.35E-05	8.3	N	0%	100%
VOC	Dibromochloromethane	02	57	1.80E-03	2.06E-04	3.20E-05	8.3	N	0%	100%
VOC	Dibromochloromethane	03	2	4.15E-04	2.26E-04	3.65E-05	8.3	N	0%	100%
VOC	Dibromochloromethane	04	14	6.00E-03	4.94E-04	3.55E-05	8.3	N	0%	100%
VOC	Dibromochloromethane	05	25	5.50E-04	1.65E-04	2.90E-05	8.3	N	0%	100%
VOC	Dibromochloromethane	06	17	6.00E-04	2.68E-04	3.35E-05	8.3	N	0%	100%
VOC	Dibromochloromethane	08	22	6.50E-04	1.02E-04	3.25E-05	8.3	N	0%	100%
VOC	Dibromochloromethane	09	29	6.00E-04	1.78E-04	3.35E-05	8.3	N	0%	100%
VOC	Dibromochloromethane	10	33	5.50E-04	2.40E-04	3.20E-05	8.3	N	0%	100%
VOC	Dibromochloromethane	11	34	2.60E-02	1.65E-03	2.85E-05	8.3	N	0%	100%
VOC	Dibromochloromethane	12	16	4.75E-04	1.10E-04	3.00E-05	8.3	N	0%	100%
VOC	Dibromomethane	01	46	5.00E-04	2.51E-04	7.50E-05	2.4	N	0%	100%
VOC	Dibromomethane	02	57	1.30E-03	2.28E-04	7.00E-05	2.4	N	0%	100%
VOC	Dibromomethane	03	2	4.15E-04	2.48E-04	8.00E-05	2.4	N	0%	100%
VOC	Dibromomethane	04	14	6.00E-03	5.34E-04	8.00E-05	2.4	N	0%	100%
VOC	Dibromomethane	05	25	5.50E-04	1.97E-04	6.50E-05	2.4	N	0%	100%
VOC	Dibromomethane	06	17	6.00E-04	2.93E-04	7.50E-05	2.4	N	0%	100%
VOC	Dibromomethane	08	22	6.50E-04	1.40E-04	7.00E-05	2.4	N	0%	100%
VOC	Dibromomethane	09	29	6.00E-04	2.09E-04	7.50E-05	2.4	N	0%	100%
VOC	Dibromomethane	10	33	5.50E-04	2.62E-04	7.00E-05	2.4	N	0%	100%
VOC	Dibromomethane	11	34	2.60E-02	1.67E-03	6.50E-05	2.4	N	0%	100%
VOC	Dibromomethane	12	16	4.75E-04	1.53E-04	6.50E-05	2.4	N	0%	100%
VOC	Dichlorodifluoromethane(Freon 12)	01	46	1.00E-03	4.19E-04	3.20E-05	8.7	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	Dichlorodifluoromethane(Freon 12)	02	57	2.75E-03	3.49E-04	3.10E-05	8.7	N	0%	100%
VOC	Dichlorodifluoromethane(Freon 12)	03	2	8.50E-04	4.43E-04	3.50E-05	8.7	N	0%	100%
VOC	Dichlorodifluoromethane(Freon 12)	04	14	1.20E-02	9.90E-04	3.40E-05	8.7	N	0%	93%
VOC	Dichlorodifluoromethane(Freon 12)	05	25	1.15E-03	3.02E-04	2.75E-05	8.7	N	0%	100%
VOC	Dichlorodifluoromethane(Freon 12)	06	17	1.15E-03	5.06E-04	3.25E-05	8.7	N	0%	100%
VOC	Dichlorodifluoromethane(Freon 12)	08	22	1.30E-03	1.72E-04	3.10E-05	8.7	N	0%	100%
VOC	Dichlorodifluoromethane(Freon 12)	09	29	1.20E-03	3.30E-04	3.25E-05	8.7	N	0%	100%
VOC	Dichlorodifluoromethane(Freon 12)	10	33	1.10E-03	4.29E-04	3.10E-05	8.7	N	0%	100%
VOC	Dichlorodifluoromethane(Freon 12)	11	34	5.00E-02	3.12E-03	2.75E-05	8.7	N	0%	100%
VOC	Dichlorodifluoromethane(Freon 12)	12	16	9.50E-04	1.94E-04	2.85E-05	8.7	N	0%	100%
VOC	Ethylbenzene	01	46	7.80E-04	2.54E-04	7.50E-05	5.8	N	0%	98%
VOC	Ethylbenzene	02	57	1.40E-02	4.62E-04	7.00E-05	5.8	N	0%	95%
VOC	Ethylbenzene	03	2	4.15E-04	2.48E-04	8.00E-05	5.8	N	0%	100%
VOC	Ethylbenzene	04	14	6.00E-03	5.35E-04	8.00E-05	5.8	N	0%	100%
VOC	Ethylbenzene	05	25	5.50E-04	2.08E-04	6.50E-05	5.8	N	0%	100%
VOC	Ethylbenzene	06	17	6.00E-04	2.94E-04	7.50E-05	5.8	N	0%	100%
VOC	Ethylbenzene	08	22	6.50E-04	1.41E-04	7.00E-05	5.8	N	0%	100%
VOC	Ethylbenzene	09	28	1.30E-03	2.80E-04	7.50E-05	5.8	N	0%	86%
VOC	Ethylbenzene	10	33	5.50E-04	2.70E-04	7.00E-05	5.8	N	0%	97%
VOC	Ethylbenzene	11	34	3.50E-01	1.12E-02	6.50E-05	5.8	N	0%	94%
VOC	Ethylbenzene	12	16	4.75E-04	1.40E-04	6.50E-05	5.8	N	0%	100%
VOC	Isopropylbenzene (Cumene)	01	46	7.50E-04	2.24E-04	1.25E-05	190	N	0%	96%
VOC	Isopropylbenzene (Cumene)	02	57	2.40E-02	6.06E-04	1.20E-05	190	N	0%	95%
VOC	Isopropylbenzene (Cumene)	03	2	4.15E-04	2.15E-04	1.40E-05	190	N	0%	100%
VOC	Isopropylbenzene (Cumene)	04	14	6.00E-03	4.74E-04	1.35E-05	190	N	0%	100%
VOC	Isopropylbenzene (Cumene)	05	25	5.50E-04	1.48E-04	1.10E-05	190	N	0%	100%
VOC	Isopropylbenzene (Cumene)	06	17	6.00E-04	2.61E-04	1.30E-05	190	N	0%	94%
VOC	Isopropylbenzene (Cumene)	08	22	6.50E-04	8.26E-05	1.25E-05	190	N	0%	100%
VOC	Isopropylbenzene (Cumene)	09	27	6.00E-04	1.73E-04	1.30E-05	190	N	0%	100%
VOC	Isopropylbenzene (Cumene)	10	33	5.50E-04	2.36E-04	1.20E-05	190	N	0%	100%
VOC	Isopropylbenzene (Cumene)	11	34	1.10E+00	3.32E-02	1.10E-05	190	N	0%	97%
VOC	Isopropylbenzene (Cumene)	12	16	4.75E-04	8.66E-05	1.15E-05	190	N	0%	100%
VOC	Methylene chloride	01	46	3.10E-03	1.45E-03	1.45E-04	35	N	0%	91%
VOC	Methylene chloride	02	57	1.80E-02	1.53E-03	1.40E-04	35	N	0%	96%
VOC	Methylene chloride	03	2	2.10E-03	1.13E-03	1.60E-04	35	N	0%	100%
VOC	Methylene chloride	04	14	3.05E-02	2.59E-03	1.55E-04	35	N	0%	86%
VOC	Methylene chloride	05	25	2.80E-03	1.01E-03	1.25E-04	35	N	0%	84%
VOC	Methylene chloride	06	17	2.90E-03	1.47E-03	1.55E-04	35	N	0%	76%
VOC	Methylene chloride	08	22	3.30E-03	4.96E-04	1.40E-04	35	N	0%	100%
VOC	Methylene chloride	09	29	2.95E-03	8.72E-04	1.45E-04	35	N	0%	100%
VOC	Methylene chloride	10	33	3.45E-03	1.31E-03	1.15E-04	35	N	0%	100%
VOC	Methylene chloride	11	34	2.60E-01	1.59E-02	1.15E-04	35	N	0%	79%
VOC	Methylene chloride	12	16	3.45E-03	7.68E-04	1.55E-04	35	N	0%	88%
VOC	Naphthalene	01	46	1.10E-02	6.63E-04	2.40E-05	3.8	N	0%	89%
VOC	Naphthalene	02	56	9.80E-01	1.83E-02	2.35E-05	3.8	N	0%	91%
VOC	Naphthalene	03	2	8.50E-04	4.38E-04	2.65E-05	3.8	N	0%	100%
VOC	Naphthalene	04	14	1.20E-02	9.55E-04	2.55E-05	3.8	N	0%	100%
VOC	Naphthalene	05	25	1.15E-03	3.47E-04	2.05E-05	3.8	N	0%	100%
VOC	Naphthalene	06	17	1.15E-03	5.16E-04	2.45E-05	3.8	N	0%	94%
VOC	Naphthalene	08	22	1.30E-03	3.77E-04	2.35E-05	3.8	N	0%	95%
VOC	Naphthalene	09	23	2.10E-03	6.26E-04	2.60E-05	3.8	N	0%	91%
VOC	Naphthalene	10	33	1.10E-03	4.93E-04	2.30E-05	3.8	N	0%	97%
VOC	Naphthalene	11	34	1.10E+00	3.59E-02	2.05E-05	3.8	N	0%	94%
VOC	Naphthalene	12	16	5.70E-03	5.57E-04	2.15E-05	3.8	N	0%	94%
VOC	n-Butylbenzene	01	46	2.70E-03	2.95E-04	4.25E-05	390	N	0%	96%
VOC	n-Butylbenzene	02	55	1.30E-03	2.24E-04	4.10E-05	390	N	0%	98%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	n-Butylbenzene	03	2	4.15E-04	2.31E-04	4.65E-05	390	N	0%	100%
VOC	n-Butylbenzene	04	14	6.00E-03	5.03E-04	4.55E-05	390	N	0%	100%
VOC	n-Butylbenzene	05	25	5.50E-04	1.75E-04	3.70E-05	390	N	0%	100%
VOC	n-Butylbenzene	06	17	6.00E-04	2.76E-04	4.30E-05	390	N	0%	94%
VOC	n-Butylbenzene	08	22	6.50E-04	1.11E-04	4.15E-05	390	N	0%	100%
VOC	n-Butylbenzene	09	24	6.00E-04	2.14E-04	4.45E-05	390	N	0%	100%
VOC	n-Butylbenzene	10	33	5.50E-04	2.67E-04	4.10E-05	390	N	0%	100%
VOC	n-Butylbenzene	11	34	2.90E+00	8.69E-02	3.65E-05	390	N	0%	97%
VOC	n-Butylbenzene	12	16	4.75E-04	1.19E-04	3.80E-05	390	N	0%	100%
VOC	n-Propylbenzene	01	46	1.80E-03	2.63E-04	2.65E-05	380	N	0%	96%
VOC	n-Propylbenzene	02	57	7.60E-02	1.57E-03	2.55E-05	380	N	0%	95%
VOC	n-Propylbenzene	03	2	4.15E-04	2.22E-04	2.90E-05	380	N	0%	100%
VOC	n-Propylbenzene	04	14	6.00E-03	4.88E-04	2.85E-05	380	N	0%	100%
VOC	n-Propylbenzene	05	24	5.50E-04	1.66E-04	2.30E-05	380	N	0%	100%
VOC	n-Propylbenzene	06	17	6.00E-04	2.63E-04	2.70E-05	380	N	0%	100%
VOC	n-Propylbenzene	08	22	6.50E-04	9.58E-05	2.55E-05	380	N	0%	100%
VOC	n-Propylbenzene	09	27	6.00E-04	1.83E-04	2.70E-05	380	N	0%	100%
VOC	n-Propylbenzene	10	33	5.50E-04	2.53E-04	2.55E-05	380	N	0%	100%
VOC	n-Propylbenzene	11	34	2.90E+00	8.62E-02	2.30E-05	380	N	0%	97%
VOC	n-Propylbenzene	12	16	4.75E-04	1.02E-04	2.40E-05	380	N	0%	100%
VOC	sec-Butylbenzene	01	46	1.10E-03	2.45E-04	2.50E-05	390	N	0%	98%
VOC	sec-Butylbenzene	02	55	1.30E-01	2.59E-03	2.40E-05	390	N	0%	98%
VOC	sec-Butylbenzene	03	2	4.15E-04	2.21E-04	2.70E-05	390	N	0%	100%
VOC	sec-Butylbenzene	04	14	6.00E-03	4.86E-04	2.65E-05	390	N	0%	100%
VOC	sec-Butylbenzene	05	21	5.50E-04	1.82E-04	2.15E-05	390	N	0%	100%
VOC	sec-Butylbenzene	06	17	6.00E-04	2.65E-04	2.50E-05	390	N	0%	94%
VOC	sec-Butylbenzene	08	22	6.50E-04	9.42E-05	2.40E-05	390	N	0%	100%
VOC	sec-Butylbenzene	09	27	6.00E-04	1.82E-04	2.50E-05	390	N	0%	100%
VOC	sec-Butylbenzene	10	33	5.50E-04	2.56E-04	2.40E-05	390	N	0%	100%
VOC	sec-Butylbenzene	11	34	2.60E+00	7.86E-02	2.15E-05	390	N	0%	94%
VOC	sec-Butylbenzene	12	16	4.75E-04	1.02E-04	2.25E-05	390	N	0%	100%
VOC	Styrene	01	46	5.10E-04	2.39E-04	2.50E-05	600	N	0%	83%
VOC	Styrene	02	56	7.30E-03	3.11E-04	2.40E-05	600	N	0%	87%
VOC	Styrene	03	2	4.15E-04	2.21E-04	2.70E-05	600	N	0%	100%
VOC	Styrene	04	14	6.00E-03	4.91E-04	2.65E-05	600	N	0%	93%
VOC	Styrene	05	25	5.50E-04	1.58E-04	2.15E-05	600	N	0%	100%
VOC	Styrene	06	17	6.00E-04	2.66E-04	2.50E-05	600	N	0%	94%
VOC	Styrene	08	22	6.50E-04	1.04E-04	2.40E-05	600	N	0%	95%
VOC	Styrene	09	26	6.00E-04	1.88E-04	2.60E-05	600	N	0%	100%
VOC	Styrene	10	33	5.50E-04	2.40E-04	2.40E-05	600	N	0%	100%
VOC	Styrene	11	34	2.60E-02	1.94E-03	2.15E-05	600	N	0%	97%
VOC	Styrene	12	16	4.75E-04	9.89E-05	2.25E-05	600	N	0%	100%
VOC	tert-Butyl methyl ether (MTBE)	10	15	1.05E-04	1.05E-04	1.05E-04	47	N	0%	100%
VOC	tert-Butyl methyl ether (MTBE)	11	5	1.05E-04	1.05E-04	1.05E-04	47	N	0%	100%
VOC	tert-Butylbenzene	01	46	5.00E-04	2.27E-04	1.80E-05	390	N	0%	98%
VOC	tert-Butylbenzene	02	56	1.30E-03	1.95E-04	1.75E-05	390	N	0%	100%
VOC	tert-Butylbenzene	03	2	4.15E-04	2.18E-04	2.00E-05	390	N	0%	100%
VOC	tert-Butylbenzene	04	14	6.00E-03	4.79E-04	1.95E-05	390	N	0%	100%
VOC	tert-Butylbenzene	05	21	5.50E-04	1.79E-04	1.55E-05	390	N	0%	95%
VOC	tert-Butylbenzene	06	17	6.00E-04	2.58E-04	1.85E-05	390	N	0%	100%
VOC	tert-Butylbenzene	08	22	6.50E-04	8.78E-05	1.75E-05	390	N	0%	100%
VOC	tert-Butylbenzene	09	27	6.00E-04	1.77E-04	1.85E-05	390	N	0%	100%
VOC	tert-Butylbenzene	10	33	5.50E-04	2.43E-04	1.75E-05	390	N	0%	100%
VOC	tert-Butylbenzene	11	34	1.90E-01	7.26E-03	1.55E-05	390	N	0%	97%
VOC	tert-Butylbenzene	12	16	4.75E-04	9.44E-05	1.65E-05	390	N	0%	100%
VOC	Tetrachloroethene (PCE)	01	46	5.00E-04	2.47E-04	3.20E-05	8.1	N	0%	89%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	Tetrachloroethene (PCE)	02	57	2.30E-02	7.51E-04	3.15E-05	8.1	N	0%	84%
VOC	Tetrachloroethene (PCE)	03	2	4.15E-04	2.25E-04	3.50E-05	8.1	N	0%	100%
VOC	Tetrachloroethene (PCE)	04	14	6.00E-03	4.93E-04	3.40E-05	8.1	N	0%	100%
VOC	Tetrachloroethene (PCE)	05	25	5.50E-04	1.64E-04	2.75E-05	8.1	N	0%	100%
VOC	Tetrachloroethene (PCE)	06	17	6.00E-04	2.67E-04	3.25E-05	8.1	N	0%	100%
VOC	Tetrachloroethene (PCE)	08	22	6.50E-04	1.01E-04	3.10E-05	8.1	N	0%	100%
VOC	Tetrachloroethene (PCE)	09	28	1.30E-03	2.37E-04	3.25E-05	8.1	N	0%	93%
VOC	Tetrachloroethene (PCE)	10	33	5.50E-04	2.38E-04	3.10E-05	8.1	N	0%	100%
VOC	Tetrachloroethene (PCE)	11	34	9.00E-01	3.19E-02	2.75E-05	8.1	N	0%	88%
VOC	Tetrachloroethene (PCE)	12	16	4.75E-04	1.02E-04	2.85E-05	8.1	N	0%	100%
VOC	Toluene	01	46	7.90E-04	2.78E-04	5.50E-05	490	N	0%	96%
VOC	Toluene	02	57	9.80E-03	4.53E-04	5.50E-05	490	N	0%	79%
VOC	Toluene	03	2	4.15E-04	2.38E-04	6.00E-05	490	N	0%	100%
VOC	Toluene	04	14	6.00E-03	5.40E-04	6.00E-05	490	N	0%	93%
VOC	Toluene	05	25	5.50E-04	2.63E-04	4.85E-05	490	N	0%	92%
VOC	Toluene	06	17	6.00E-04	2.97E-04	5.50E-05	490	N	0%	88%
VOC	Toluene	08	22	6.50E-04	1.47E-04	5.50E-05	490	N	0%	82%
VOC	Toluene	09	28	1.00E-02	7.66E-04	6.00E-05	490	N	0%	82%
VOC	Toluene	10	33	1.70E-03	3.29E-04	5.50E-05	490	N	0%	91%
VOC	Toluene	11	34	1.10E-01	4.17E-03	4.85E-05	490	N	0%	94%
VOC	Toluene	12	16	4.75E-04	1.24E-04	5.00E-05	490	N	0%	100%
VOC	trans-1,2-Dichloroethene	01	46	5.00E-04	2.18E-04	3.40E-05	160	N	0%	100%
VOC	trans-1,2-Dichloroethene	02	57	1.35E-03	1.87E-04	3.30E-05	160	N	0%	100%
VOC	trans-1,2-Dichloroethene	03	2	4.15E-04	2.26E-04	3.75E-05	160	N	0%	100%
VOC	trans-1,2-Dichloroethene	04	14	6.00E-03	4.95E-04	3.65E-05	160	N	0%	100%
VOC	trans-1,2-Dichloroethene	05	25	5.50E-04	1.66E-04	2.95E-05	160	N	0%	100%
VOC	trans-1,2-Dichloroethene	06	17	6.00E-04	2.68E-04	3.45E-05	160	N	0%	100%
VOC	trans-1,2-Dichloroethene	08	22	6.50E-04	1.03E-04	3.30E-05	160	N	0%	100%
VOC	trans-1,2-Dichloroethene	09	29	6.00E-04	1.79E-04	3.45E-05	160	N	0%	100%
VOC	trans-1,2-Dichloroethene	10	33	5.50E-04	2.37E-04	3.30E-05	160	N	0%	100%
VOC	trans-1,2-Dichloroethene	11	34	2.60E-02	1.64E-03	2.95E-05	160	N	0%	100%
VOC	trans-1,2-Dichloroethene	12	16	4.75E-04	1.11E-04	3.05E-05	160	N	0%	100%
VOC	Trichloroethene (TCE)	01	46	5.00E-04	2.16E-04	4.20E-05	0.41	N	0%	100%
VOC	Trichloroethene (TCE)	02	57	1.80E-02	4.83E-04	4.00E-05	0.41	N	0%	100%
VOC	Trichloroethene (TCE)	03	2	4.15E-04	2.30E-04	4.55E-05	0.41	N	0%	100%
VOC	Trichloroethene (TCE)	04	14	6.00E-03	5.03E-04	4.45E-05	0.41	N	0%	100%
VOC	Trichloroethene (TCE)	05	25	5.50E-04	1.73E-04	3.60E-05	0.41	N	0%	100%
VOC	Trichloroethene (TCE)	06	17	6.00E-04	2.73E-04	4.20E-05	0.41	N	0%	100%
VOC	Trichloroethene (TCE)	08	22	6.50E-04	1.10E-04	4.05E-05	0.41	N	0%	100%
VOC	Trichloroethene (TCE)	09	28	6.00E-04	1.90E-04	4.20E-05	0.41	N	0%	100%
VOC	Trichloroethene (TCE)	10	33	5.50E-04	2.34E-04	4.05E-05	0.41	N	0%	100%
VOC	Trichloroethene (TCE)	11	34	2.60E-02	2.18E-03	3.60E-05	0.41	N	0%	100%
VOC	Trichloroethene (TCE)	12	16	8.00E-04	1.45E-04	3.75E-05	0.41	N	0%	94%
VOC	Trichlorofluoromethane (Freon 11)	01	46	5.00E-04	2.17E-04	2.25E-05	2300	N	0%	100%
VOC	Trichlorofluoromethane (Freon 11)	02	57	3.30E-03	2.84E-04	2.15E-05	2300	N	0%	91%
VOC	Trichlorofluoromethane (Freon 11)	03	2	4.15E-04	2.63E-04	1.10E-04	2300	N	0%	100%
VOC	Trichlorofluoromethane (Freon 11)	04	14	6.00E-03	4.83E-04	2.40E-05	2300	N	0%	100%
VOC	Trichlorofluoromethane (Freon 11)	05	25	8.00E-04	2.14E-04	1.95E-05	2300	N	0%	92%
VOC	Trichlorofluoromethane (Freon 11)	06	17	6.00E-04	2.70E-04	2.25E-05	2300	N	0%	94%
VOC	Trichlorofluoromethane (Freon 11)	08	22	6.50E-04	1.18E-04	2.15E-05	2300	N	0%	95%
VOC	Trichlorofluoromethane (Freon 11)	09	29	7.90E-03	6.29E-04	2.25E-05	2300	N	0%	72%
VOC	Trichlorofluoromethane (Freon 11)	10	33	4.90E-03	4.29E-04	2.15E-05	2300	N	0%	88%
VOC	Trichlorofluoromethane (Freon 11)	11	34	5.00E-02	3.15E-03	2.20E-05	2300	N	0%	82%
VOC	Trichlorofluoromethane (Freon 11)	12	16	4.75E-04	9.53E-05	2.00E-05	2300	N	0%	100%
VOC	Vinyl acetate	10	3	7.00E-04	7.00E-04	7.00E-04	91	N	0%	100%
VOC	Vinyl acetate	11	1	7.00E-04	7.00E-04	7.00E-04	91	N	0%	100%

Table A-2: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-2 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	Vinyl chloride	01	46	5.00E-04	2.42E-04	2.40E-05	0.059	N	0%	100%
VOC	Vinyl chloride	02	57	1.30E-03	2.21E-04	2.30E-05	0.059	N	0%	100%
VOC	Vinyl chloride	03	2	4.15E-04	2.21E-04	2.65E-05	0.059	N	0%	100%
VOC	Vinyl chloride	04	14	6.00E-03	4.85E-04	2.55E-05	0.059	N	0%	100%
VOC	Vinyl chloride	05	25	5.50E-04	1.58E-04	2.05E-05	0.059	N	0%	100%
VOC	Vinyl chloride	06	17	6.00E-04	2.62E-04	2.45E-05	0.059	N	0%	100%
VOC	Vinyl chloride	08	22	6.50E-04	9.34E-05	2.35E-05	0.059	N	0%	100%
VOC	Vinyl chloride	09	29	6.00E-04	1.71E-04	2.45E-05	0.059	N	0%	100%
VOC	Vinyl chloride	10	33	5.50E-04	2.57E-04	2.30E-05	0.059	N	0%	100%
VOC	Vinyl chloride	11	34	5.00E-02	3.04E-03	2.35E-05	0.059	N	0%	100%
VOC	Vinyl chloride	12	16	4.80E-04	1.22E-04	2.15E-05	0.059	N	0%	100%
VOC	Xylenes, total	01	46	1.30E-02	7.42E-04	1.45E-04	58	N	0%	98%
VOC	Xylenes, total	02	57	1.50E-01	3.18E-03	1.40E-04	58	N	0%	91%
VOC	Xylenes, total	03	2	8.50E-04	5.03E-04	1.55E-04	58	N	0%	100%
VOC	Xylenes, total	04	14	1.20E-02	1.06E-03	1.50E-04	58	N	0%	100%
VOC	Xylenes, total	05	25	1.15E-03	5.39E-04	1.25E-04	58	N	0%	96%
VOC	Xylenes, total	06	17	1.15E-03	5.87E-04	1.45E-04	58	N	0%	94%
VOC	Xylenes, total	08	22	1.30E-03	2.95E-04	1.40E-04	58	N	0%	95%
VOC	Xylenes, total	09	28	5.50E-03	6.78E-04	1.45E-04	58	N	0%	89%
VOC	Xylenes, total	10	30	2.00E-03	5.81E-04	1.40E-04	58	N	0%	93%
VOC	Xylenes, total	11	33	1.50E+00	4.73E-02	1.25E-04	58	N	0%	94%
VOC	Xylenes, total	12	16	9.50E-04	2.70E-04	1.30E-04	58	N	0%	100%

Notes:

[a] Units for Radium-226 and Radium-228 are in pCi/g

Abbreviations: mg/kg= milligram per kilogram; pci/g= pico Curies per gram; Res RSL= residential regional screening level for soil

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	01	84	2.50E+00	8.12E-01	4.20E-01	6.3	N	0%	99%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	02	128	2.50E+00	1.02E+00	4.20E-01	6.3	N	0%	99%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	03	37	1.05E+00	4.58E-01	4.30E-01	6.3	N	0%	100%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	04	33	4.38E+00	6.11E-01	4.32E-01	6.3	N	0%	100%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	05	45	2.50E+00	1.43E+00	4.33E-01	6.3	N	0%	100%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	06	51	6.70E+00	1.47E+00	4.29E-01	6.3	Y	4%	97%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	07	30	5.20E-01	4.57E-01	4.33E-01	6.3	N	0%	100%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	08	73	2.50E+00	8.29E-01	4.29E-01	6.3	N	0%	98%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	09	82	2.45E+00	5.01E-01	4.27E-01	6.3	N	0%	99%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	10	85	2.50E+00	6.22E-01	4.24E-01	6.3	N	0%	100%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	11	131	2.50E+00	9.20E-01	4.29E-01	6.3	N	0%	100%
Herbicides	2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	12	47	7.05E-01	4.56E-01	4.29E-01	6.3	N	0%	100%
Herbicides	2,4-DB	01	83	4.40E-01	2.87E-02	5.00E-03	51	N	0%	97%
Herbicides	2,4-DB	02	128	1.65E-02	1.34E-02	5.00E-03	51	N	0%	100%
Herbicides	2,4-DB	03	37	1.58E-02	1.52E-02	1.45E-02	51	N	0%	100%
Herbicides	2,4-DB	04	39	1.51E-01	1.58E-02	5.00E-03	51	N	0%	100%
Herbicides	2,4-DB	05	44	1.56E-02	1.28E-02	1.00E-02	51	N	0%	100%
Herbicides	2,4-DB	06	50	1.61E-02	1.27E-02	5.00E-03	51	N	0%	100%
Herbicides	2,4-DB	07	30	1.79E-02	1.58E-02	1.50E-02	51	N	0%	100%
Herbicides	2,4-DB	08	73	1.60E-02	1.42E-02	1.00E-02	51	N	0%	100%
Herbicides	2,4-DB	09	82	8.50E-02	1.69E-02	1.45E-02	51	N	0%	100%
Herbicides	2,4-DB	10	85	4.11E-02	1.51E-02	1.00E-02	51	N	0%	100%
Herbicides	2,4-DB	11	131	8.25E-02	1.65E-02	1.00E-02	51	N	0%	100%
Herbicides	2,4-DB	12	47	2.43E-02	1.58E-02	1.48E-02	51	N	0%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	01	84	2.50E+00	1.03E+00	7.00E-01	3.2	N	0%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	02	128	2.50E+00	1.19E+00	7.00E-01	3.2	N	0%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	03	37	7.60E-01	7.28E-01	7.00E-01	3.2	N	0%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	04	32	7.30E+00	9.42E-01	7.20E-01	3.2	Y	9%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	05	45	2.50E+00	1.58E+00	7.00E-01	3.2	N	0%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	06	51	2.50E+00	1.49E+00	7.00E-01	3.2	N	0%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	07	30	8.65E-01	7.62E-01	7.20E-01	3.2	N	0%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	08	73	2.50E+00	1.08E+00	7.00E-01	3.2	N	0%	96%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	09	82	4.00E+00	8.21E-01	7.00E-01	3.2	Y	10%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	10	85	2.50E+00	8.97E-01	7.00E-01	3.2	N	0%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	11	131	3.98E+00	1.22E+00	7.00E-01	3.2	Y	5%	100%
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	12	47	1.17E+00	7.61E-01	7.15E-01	3.2	N	0%	100%
Herbicides	Dalapon	01	84	1.80E-02	1.50E-02	5.00E-03	190	N	0%	100%
Herbicides	Dalapon	02	128	1.76E-02	1.42E-02	5.00E-03	190	N	0%	100%
Herbicides	Dalapon	03	37	1.69E-02	1.62E-02	1.55E-02	190	N	0%	100%
Herbicides	Dalapon	04	38	1.62E-01	1.66E-02	5.00E-03	190	N	0%	100%
Herbicides	Dalapon	05	45	1.67E-02	1.32E-02	1.00E-02	190	N	0%	100%
Herbicides	Dalapon	06	51	1.72E-02	1.32E-02	5.00E-03	190	N	0%	100%
Herbicides	Dalapon	07	30	1.92E-02	1.69E-02	1.60E-02	190	N	0%	100%
Herbicides	Dalapon	08	73	1.75E-02	1.50E-02	1.00E-02	190	N	0%	100%
Herbicides	Dalapon	09	81	9.00E-02	1.80E-02	1.55E-02	190	N	0%	100%
Herbicides	Dalapon	10	85	1.77E-02	1.58E-02	1.00E-02	190	N	0%	100%
Herbicides	Dalapon	11	131	8.80E-02	1.75E-02	1.00E-02	190	N	0%	100%
Herbicides	Dalapon	12	47	2.60E-02	1.68E-02	1.58E-02	190	N	0%	100%
Herbicides	Dicamba	01	84	2.00E-02	5.84E-03	2.80E-03	190	N	0%	100%
Herbicides	Dicamba	02	128	2.00E-02	7.45E-03	2.80E-03	190	N	0%	100%
Herbicides	Dicamba	03	37	3.05E-03	2.93E-03	2.85E-03	190	N	0%	100%
Herbicides	Dicamba	04	38	2.92E-02	1.01E-02	2.88E-03	190	N	0%	100%
Herbicides	Dicamba	05	45	2.00E-02	1.12E-02	2.89E-03	190	N	0%	100%
Herbicides	Dicamba	06	51	2.00E-02	1.03E-02	2.85E-03	190	N	0%	100%
Herbicides	Dicamba	07	30	3.46E-03	3.05E-03	2.89E-03	190	N	0%	100%
Herbicides	Dicamba	08	73	2.40E-02	6.70E-03	2.85E-03	190	N	0%	97%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Herbicides	Dicamba	09	83	1.60E-02	3.26E-03	2.85E-03	190	N	0%	100%
Herbicides	Dicamba	10	85	2.00E-02	4.37E-03	2.83E-03	190	N	0%	100%
Herbicides	Dicamba	11	131	2.00E-02	6.80E-03	2.86E-03	190	N	0%	100%
Herbicides	Dicamba	12	47	4.69E-03	3.04E-03	2.86E-03	190	N	0%	100%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	01	84	2.00E-02	5.77E-03	2.70E-03	70	N	0%	100%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	02	128	2.00E-02	7.38E-03	2.70E-03	70	N	0%	100%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	03	37	2.95E-03	2.85E-03	2.75E-03	70	N	0%	100%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	04	38	2.81E-02	1.00E-02	2.78E-03	70	N	0%	100%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	05	45	2.00E-02	1.11E-02	2.79E-03	70	N	0%	100%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	06	51	2.00E-02	1.03E-02	2.76E-03	70	N	0%	100%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	07	30	3.34E-03	2.94E-03	2.79E-03	70	N	0%	100%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	08	73	2.00E-02	5.97E-03	2.75E-03	70	N	0%	100%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	09	83	7.50E-02	3.81E-03	2.75E-03	70	N	0%	98%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	10	85	2.00E-02	4.29E-03	2.73E-03	70	N	0%	100%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	11	131	2.00E-02	6.70E-03	2.76E-03	70	N	0%	100%
Herbicides	Dichlorophenoxyacetic acid (2,4-D)	12	47	4.52E-03	2.93E-03	2.76E-03	70	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	01	84	1.50E-02	5.65E-03	3.55E-03	63	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	02	128	1.50E-02	6.67E-03	3.55E-03	63	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	03	37	3.86E-03	3.74E-03	3.65E-03	63	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	04	39	3.70E-02	9.04E-03	3.65E-03	63	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	05	45	1.50E-02	9.16E-03	3.66E-03	63	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	06	51	1.50E-02	8.59E-03	3.62E-03	63	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	07	30	4.39E-03	3.86E-03	3.66E-03	63	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	08	73	1.50E-02	5.99E-03	3.62E-03	63	N	0%	98%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	09	83	2.05E-02	4.14E-03	3.61E-03	63	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	10	85	1.50E-02	4.68E-03	3.58E-03	63	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	11	131	2.02E-02	6.55E-03	3.62E-03	63	N	0%	100%
Herbicides	Trichlorophenoxyacetic acid (2,4,5-T)	12	47	5.95E-03	3.86E-03	3.62E-03	63	N	0%	100%
Metals	Aluminum	01	190	1.70E+04	6.70E+03	3.30E+03	7700	Y	41%	0%
Metals	Aluminum	02	165	1.30E+04	6.03E+03	3.30E+03	7700	Y	31%	0%
Metals	Aluminum	03	51	1.00E+04	5.53E+03	2.80E+03	7700	Y	9%	0%
Metals	Aluminum	04	48	9.30E+03	5.44E+03	2.90E+03	7700	Y	20%	0%
Metals	Aluminum	05	76	1.30E+04	5.30E+03	3.30E+03	7700	Y	6%	0%
Metals	Aluminum	06	87	1.70E+04	5.89E+03	3.30E+03	7700	Y	22%	0%
Metals	Aluminum	07	30	1.30E+04	6.19E+03	1.90E+03	7700	Y	40%	0%
Metals	Aluminum	08	85	9.50E+03	4.92E+03	9.50E+02	7700	Y	16%	0%
Metals	Aluminum	09	119	1.30E+04	6.16E+03	2.70E+03	7700	Y	47%	0%
Metals	Aluminum	10	131	1.90E+04	5.08E+03	3.00E+02	7700	Y	22%	0%
Metals	Aluminum	11	135	1.40E+04	5.83E+03	9.20E+02	7700	Y	32%	0%
Metals	Aluminum	12	89	1.90E+04	6.36E+03	2.30E+03	7700	Y	36%	0%
Metals	Antimony	01	145	4.10E+00	3.43E-01	2.60E-02	3.1	Y	2%	76%
Metals	Antimony	02	105	1.60E+01	7.82E-01	2.40E-02	3.1	Y	5%	65%
Metals	Antimony	03	31	1.20E+00	4.08E-01	2.20E-01	3.1	N	0%	79%
Metals	Antimony	04	78	2.80E+00	3.53E-01	2.40E-02	3.1	N	0%	56%
Metals	Antimony	05	116	2.10E+00	3.53E-01	2.55E-01	3.1	N	0%	93%
Metals	Antimony	06	68	5.60E+00	4.00E-01	2.40E-02	3.1	Y	5%	66%
Metals	Antimony	07	42	3.70E+00	4.45E-01	2.60E-01	3.1	Y	6%	74%
Metals	Antimony	08	67	4.30E+00	4.17E-01	2.10E-02	3.1	Y	9%	62%
Metals	Antimony	09	61	5.70E+00	6.69E-01	2.40E-02	3.1	Y	25%	74%
Metals	Antimony	10	93	1.20E+01	8.06E-01	2.50E-02	3.1	Y	17%	67%
Metals	Antimony	11	78	5.60E+00	3.72E-01	2.30E-02	3.1	Y	8%	71%
Metals	Antimony	12	49	1.90E+00	3.53E-01	7.60E-02	3.1	N	0%	60%
Metals	Arsenic	01	225	3.20E+01	4.51E+00	1.40E+00	0.68	Y	100%	0%
Metals	Arsenic	02	226	2.60E+01	5.13E+00	1.40E+00	0.68	Y	100%	0%
Metals	Arsenic	03	64	7.40E+00	3.84E+00	1.90E+00	0.68	Y	100%	0%
Metals	Arsenic	04	106	3.40E+01	7.51E+00	2.00E+00	0.68	Y	100%	0%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Metals	Arsenic	05	161	2.70E+02	7.29E+00	1.60E+00	0.68	Y	100%	0%
Metals	Arsenic	06	115	9.40E+00	4.01E+00	2.20E+00	0.68	Y	100%	0%
Metals	Arsenic	07	71	4.10E+02	2.92E+01	2.60E+00	0.68	Y	100%	0%
Metals	Arsenic	08	131	6.70E+01	6.47E+00	1.90E+00	0.68	Y	100%	0%
Metals	Arsenic	09	143	1.50E+02	1.20E+01	1.30E+00	0.68	Y	100%	0%
Metals	Arsenic	10	173	7.00E+01	6.51E+00	3.80E-01	0.68	Y	96%	0%
Metals	Arsenic	11	200	1.10E+02	5.07E+00	1.50E+00	0.68	Y	100%	0%
Metals	Arsenic	12	89	6.00E+01	7.10E+00	2.30E+00	0.68	Y	100%	0%
Metals	Barium	01	190	2.90E+02	6.53E+01	2.90E+01	1500	N	0%	0%
Metals	Barium	02	165	1.50E+02	5.78E+01	1.50E+01	1500	N	0%	0%
Metals	Barium	03	51	1.10E+02	5.37E+01	3.00E+01	1500	N	0%	0%
Metals	Barium	04	48	3.70E+02	7.33E+01	2.40E+01	1500	N	0%	0%
Metals	Barium	05	76	8.60E+01	4.81E+01	2.10E+01	1500	N	0%	0%
Metals	Barium	06	87	1.40E+02	5.66E+01	2.40E+01	1500	N	0%	0%
Metals	Barium	07	30	2.40E+02	6.18E+01	2.20E+01	1500	N	0%	0%
Metals	Barium	08	85	4.00E+02	6.16E+01	2.80E+01	1500	N	0%	0%
Metals	Barium	09	119	2.50E+02	5.98E+01	2.10E+01	1500	N	0%	0%
Metals	Barium	10	131	2.70E+02	5.53E+01	2.30E+01	1500	N	0%	0%
Metals	Barium	11	135	1.60E+02	4.96E+01	2.80E+01	1500	N	0%	0%
Metals	Barium	12	89	1.50E+02	6.00E+01	1.30E+01	1500	N	0%	0%
Metals	Beryllium	01	190	7.10E-01	2.90E-01	1.30E-01	16	N	0%	6%
Metals	Beryllium	02	165	5.00E-01	2.53E-01	8.00E-02	16	N	0%	10%
Metals	Beryllium	03	51	6.30E-01	2.94E-01	1.50E-01	16	N	0%	0%
Metals	Beryllium	04	48	4.90E-01	2.35E-01	5.20E-02	16	N	0%	5%
Metals	Beryllium	05	76	4.40E-01	2.12E-01	4.90E-02	16	N	0%	13%
Metals	Beryllium	06	87	4.80E-01	2.63E-01	1.30E-01	16	N	0%	20%
Metals	Beryllium	07	30	3.60E-01	1.72E-01	4.40E-02	16	N	0%	0%
Metals	Beryllium	08	85	6.30E-01	2.29E-01	2.30E-02	16	N	0%	2%
Metals	Beryllium	09	119	6.30E-01	2.36E-01	8.00E-02	16	N	0%	8%
Metals	Beryllium	10	131	5.40E-01	2.18E-01	4.15E-03	16	N	0%	18%
Metals	Beryllium	11	135	6.60E-01	2.61E-01	8.10E-02	16	N	0%	5%
Metals	Beryllium	12	89	7.30E-01	2.95E-01	7.00E-02	16	N	0%	2%
Metals	Boron	01	190	1.20E+01	2.90E+00	6.00E-01	1600	N	0%	45%
Metals	Boron	02	165	1.10E+01	2.60E+00	5.50E-01	1600	N	0%	48%
Metals	Boron	03	51	1.00E+01	2.56E+00	8.00E-01	1600	N	0%	55%
Metals	Boron	04	48	6.90E+00	2.67E+00	8.00E-03	1600	N	0%	23%
Metals	Boron	05	76	6.90E+00	1.95E+00	2.30E-01	1600	N	0%	59%
Metals	Boron	06	87	1.10E+01	2.07E+00	7.00E-01	1600	N	0%	58%
Metals	Boron	07	30	1.20E+01	2.58E+00	2.70E-03	1600	N	0%	57%
Metals	Boron	08	85	7.50E+00	1.78E+00	2.85E-03	1600	N	0%	54%
Metals	Boron	09	119	9.40E+00	2.64E+00	3.70E-03	1600	N	0%	37%
Metals	Boron	10	131	1.55E+01	2.93E+00	3.40E-01	1600	N	0%	48%
Metals	Boron	11	135	1.40E+01	2.45E+00	2.60E-03	1600	N	0%	37%
Metals	Boron	12	89	2.60E+01	3.57E+00	2.65E-03	1600	N	0%	37%
Metals	Cadmium	01	190	1.30E+00	2.87E-01	1.10E-01	7.1	N	0%	48%
Metals	Cadmium	02	165	1.20E+00	3.27E-01	1.05E-01	7.1	N	0%	24%
Metals	Cadmium	03	51	5.10E-01	3.08E-01	1.30E-01	7.1	N	0%	22%
Metals	Cadmium	04	48	1.10E+00	3.41E-01	1.10E-01	7.1	N	0%	15%
Metals	Cadmium	05	76	1.30E+00	2.70E-01	8.50E-02	7.1	N	0%	35%
Metals	Cadmium	06	87	1.40E+00	2.95E-01	1.25E-01	7.1	N	0%	37%
Metals	Cadmium	07	30	8.00E-01	1.85E-01	5.90E-02	7.1	N	0%	0%
Metals	Cadmium	08	85	2.50E+00	3.89E-01	7.10E-02	7.1	N	0%	11%
Metals	Cadmium	09	119	1.10E+00	2.26E-01	1.10E-01	7.1	N	0%	29%
Metals	Cadmium	10	131	2.30E+00	2.53E-01	1.20E-01	7.1	N	0%	31%
Metals	Cadmium	11	135	1.90E+00	2.92E-01	1.05E-01	7.1	N	0%	7%
Metals	Cadmium	12	89	6.20E-01	1.76E-01	2.55E-02	7.1	N	0%	42%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Metals	Chromium	01	225	1.60E+01	5.92E+00	2.60E+00	12000	N	0%	1%
Metals	Chromium	02	226	2.20E+01	5.74E+00	1.60E+00	12000	N	0%	0%
Metals	Chromium	03	64	6.60E+01	7.02E+00	2.50E+00	12000	N	0%	0%
Metals	Chromium	04	106	4.20E+01	6.82E+00	2.10E+00	12000	N	0%	0%
Metals	Chromium	05	161	4.30E+01	5.32E+00	1.90E+00	12000	N	0%	0%
Metals	Chromium	06	115	1.40E+01	4.69E+00	2.10E+00	12000	N	0%	0%
Metals	Chromium	07	71	2.50E+01	7.44E+00	1.70E+00	12000	N	0%	0%
Metals	Chromium	08	131	2.80E+01	6.94E+00	6.10E-01	12000	N	0%	0%
Metals	Chromium	09	143	4.80E+01	8.83E+00	1.80E+00	12000	N	0%	0%
Metals	Chromium	10	173	3.00E+01	6.43E+00	4.20E-01	12000	N	0%	0%
Metals	Chromium	11	200	1.80E+02	6.51E+00	1.80E+00	12000	N	0%	0%
Metals	Chromium	12	89	1.90E+01	5.29E+00	1.40E+00	12000	N	0%	0%
Metals	Cobalt	01	190	9.60E+00	4.23E+00	2.70E+00	2.3	Y	100%	0%
Metals	Cobalt	02	165	9.90E+00	3.83E+00	1.80E+00	2.3	Y	97%	0%
Metals	Cobalt	03	51	1.00E+01	3.82E+00	1.90E+00	2.3	Y	96%	0%
Metals	Cobalt	04	48	1.90E+01	4.74E+00	9.60E-01	2.3	Y	100%	0%
Metals	Cobalt	05	76	2.20E+01	3.70E+00	1.30E+00	2.3	Y	92%	0%
Metals	Cobalt	06	87	2.20E+01	3.85E+00	2.20E+00	2.3	Y	100%	0%
Metals	Cobalt	07	30	1.20E+01	2.75E+00	5.00E-01	2.3	Y	90%	0%
Metals	Cobalt	08	85	1.40E+01	3.45E+00	2.40E-01	2.3	Y	100%	3%
Metals	Cobalt	09	119	3.90E+01	3.57E+00	5.80E-01	2.3	Y	93%	1%
Metals	Cobalt	10	131	4.10E+01	3.61E+00	6.00E-02	2.3	Y	86%	1%
Metals	Cobalt	11	135	8.60E+00	3.44E+00	1.80E+00	2.3	Y	100%	0%
Metals	Cobalt	12	89	1.00E+01	4.13E+00	7.80E-01	2.3	Y	91%	0%
Metals	Copper	01	225	1.20E+04	3.38E+02	3.10E+01	310	Y	27%	0%
Metals	Copper	02	226	4.60E+03	3.91E+02	2.90E+01	310	Y	38%	0%
Metals	Copper	03	64	9.10E+03	1.10E+03	2.50E+01	310	Y	38%	0%
Metals	Copper	04	106	6.10E+03	7.67E+02	1.60E+01	310	Y	69%	0%
Metals	Copper	05	161	1.70E+05	2.84E+03	2.20E+01	310	Y	77%	0%
Metals	Copper	06	115	9.10E+03	3.70E+02	2.70E+01	310	Y	34%	0%
Metals	Copper	07	71	2.60E+03	4.95E+02	4.00E+01	310	Y	77%	0%
Metals	Copper	08	131	1.70E+04	5.61E+02	1.50E+01	310	Y	64%	0%
Metals	Copper	09	143	6.60E+03	4.03E+02	2.80E+01	310	Y	58%	0%
Metals	Copper	10	173	3.00E+04	1.08E+03	3.60E+00	310	Y	44%	0%
Metals	Copper	11	200	5.50E+03	4.07E+02	1.60E+01	310	Y	45%	0%
Metals	Copper	12	89	8.70E+03	7.96E+02	5.00E+00	310	Y	39%	0%
Metals	Iron	01	225	2.00E+04	1.09E+04	5.10E+03	5500	Y	100%	0%
Metals	Iron	02	226	4.20E+04	1.06E+04	2.60E+03	5500	Y	100%	0%
Metals	Iron	03	64	1.70E+04	1.03E+04	5.60E+03	5500	Y	100%	0%
Metals	Iron	04	106	6.00E+04	1.30E+04	6.10E+03	5500	Y	100%	0%
Metals	Iron	05	161	3.10E+04	1.14E+04	6.80E+03	5500	Y	100%	0%
Metals	Iron	06	115	2.40E+04	1.05E+04	7.20E+03	5500	Y	100%	0%
Metals	Iron	07	71	9.50E+04	1.72E+04	6.20E+03	5500	Y	100%	0%
Metals	Iron	08	131	6.30E+04	1.36E+04	2.60E+03	5500	Y	100%	0%
Metals	Iron	09	143	7.90E+04	1.72E+04	5.40E+03	5500	Y	100%	0%
Metals	Iron	10	173	4.40E+04	1.42E+04	1.00E+03	5500	Y	96%	0%
Metals	Iron	11	200	4.20E+04	1.10E+04	1.20E+00	5500	Y	100%	0%
Metals	Iron	12	89	4.10E+04	1.21E+04	3.90E+03	5500	Y	100%	0%
Metals	Lead	01	225	1.50E+03	2.03E+01	2.20E+00	400	Y	2%	0%
Metals	Lead	02	226	1.30E+03	3.05E+01	1.20E+00	400	Y	3%	0%
Metals	Lead	03	64	1.30E+01	3.59E+00	1.90E+00	400	N	0%	0%
Metals	Lead	04	106	3.40E+02	2.18E+01	2.20E+00	400	N	0%	0%
Metals	Lead	05	161	5.50E+02	1.77E+01	1.70E+00	400	Y	2%	0%
Metals	Lead	06	115	8.10E+01	4.37E+00	2.00E+00	400	N	0%	0%
Metals	Lead	07	71	5.80E+01	7.18E+00	2.10E+00	400	N	0%	0%
Metals	Lead	08	131	1.80E+02	1.06E+01	1.90E+00	400	N	0%	0%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Metals	Lead	09	143	2.00E+02	1.00E+01	1.70E+00	400	N	0%	0%
Metals	Lead	10	173	1.50E+02	9.36E+00	1.70E+00	400	N	0%	0%
Metals	Lead	11	200	1.00E+03	1.31E+01	1.90E+00	400	Y	2%	0%
Metals	Lead	12	89	2.10E+01	4.40E+00	1.30E+00	400	N	0%	0%
Metals	Manganese	01	190	7.90E+02	1.88E+02	6.00E+01	180	Y	79%	0%
Metals	Manganese	02	165	3.70E+02	1.64E+02	6.50E+01	180	Y	54%	0%
Metals	Manganese	03	51	2.90E+02	1.71E+02	6.40E+01	180	Y	61%	0%
Metals	Manganese	04	48	3.20E+02	1.42E+02	2.60E+01	180	Y	40%	0%
Metals	Manganese	05	76	4.20E+02	1.44E+02	2.90E+01	180	Y	39%	0%
Metals	Manganese	06	87	6.40E+02	1.78E+02	4.10E+01	180	Y	59%	0%
Metals	Manganese	07	30	1.80E+02	5.10E+01	1.50E+01	180	Y	10%	0%
Metals	Manganese	08	85	3.90E+02	1.45E+02	1.40E+01	180	Y	68%	0%
Metals	Manganese	09	119	3.40E+02	1.11E+02	1.40E+01	180	Y	43%	0%
Metals	Manganese	10	131	4.40E+02	1.18E+02	2.90E+00	180	Y	50%	0%
Metals	Manganese	11	135	3.80E+02	1.51E+02	3.40E+01	180	Y	54%	0%
Metals	Manganese	12	89	6.00E+02	1.56E+02	1.50E+01	180	Y	64%	0%
Metals	Mercury	01	225	5.90E-01	2.98E-02	7.00E-05	1.1	N	0%	11%
Metals	Mercury	02	226	3.20E+00	9.84E-02	1.00E-05	1.1	Y	3%	14%
Metals	Mercury	03	64	1.70E-01	1.09E-02	7.00E-05	1.1	N	0%	29%
Metals	Mercury	04	106	5.10E+00	4.32E-01	7.00E-05	1.1	Y	17%	18%
Metals	Mercury	05	161	3.20E+00	1.05E-01	1.00E-05	1.1	Y	3%	11%
Metals	Mercury	06	115	6.20E-01	2.62E-02	1.00E-05	1.1	N	0%	18%
Metals	Mercury	07	71	2.20E+00	2.61E-01	7.00E-05	1.1	Y	12%	1%
Metals	Mercury	08	129	7.90E+00	2.25E-01	7.00E-05	1.1	Y	13%	16%
Metals	Mercury	09	142	6.40E+00	2.04E-01	7.00E-05	1.1	Y	17%	16%
Metals	Mercury	10	173	4.50E+00	1.37E-01	7.00E-05	1.1	Y	8%	13%
Metals	Mercury	11	200	5.20E+00	8.17E-02	7.00E-05	1.1	Y	5%	22%
Metals	Mercury	12	89	1.00E+00	1.04E-01	7.00E-05	1.1	N	0%	9%
Metals	Molybdenum	01	190	9.20E+00	6.67E-01	1.00E-02	39	N	0%	33%
Metals	Molybdenum	02	165	1.90E+01	8.08E-01	1.00E-02	39	N	0%	30%
Metals	Molybdenum	03	51	1.00E+01	9.42E-01	8.00E-02	39	N	0%	49%
Metals	Molybdenum	04	48	3.60E+00	8.70E-01	8.00E-02	39	N	0%	5%
Metals	Molybdenum	05	76	8.40E+00	9.15E-01	7.70E-02	39	N	0%	26%
Metals	Molybdenum	06	87	6.70E+00	8.71E-01	1.00E-02	39	N	0%	27%
Metals	Molybdenum	07	30	8.80E+00	2.10E+00	5.30E-01	39	N	0%	0%
Metals	Molybdenum	08	85	2.00E+01	2.04E+00	9.00E-02	39	N	0%	14%
Metals	Molybdenum	09	119	1.60E+01	1.77E+00	1.00E-02	39	N	0%	13%
Metals	Molybdenum	10	131	1.00E+01	1.64E+00	6.00E-02	39	N	0%	22%
Metals	Molybdenum	11	135	1.20E+01	7.48E-01	1.00E-02	39	N	0%	22%
Metals	Molybdenum	12	89	1.10E+01	1.67E+00	5.40E-02	39	N	0%	7%
Metals	Nickel	01	190	1.40E+01	5.55E+00	3.40E+00	150	N	0%	3%
Metals	Nickel	02	165	1.40E+01	5.63E+00	2.50E+00	150	N	0%	0%
Metals	Nickel	03	51	1.00E+01	4.77E+00	2.80E+00	150	N	0%	0%
Metals	Nickel	04	48	5.50E+01	8.37E+00	1.40E+00	150	N	0%	0%
Metals	Nickel	05	76	8.20E+01	6.27E+00	2.20E+00	150	N	0%	0%
Metals	Nickel	06	87	1.60E+01	5.01E+00	2.60E+00	150	N	0%	0%
Metals	Nickel	07	30	2.50E+01	4.72E+00	6.40E-01	150	N	0%	0%
Metals	Nickel	08	85	3.90E+01	4.93E+00	2.00E-01	150	N	0%	0%
Metals	Nickel	09	119	7.90E+01	5.22E+00	7.60E-01	150	N	0%	0%
Metals	Nickel	10	131	2.50E+01	4.55E+00	8.00E-02	150	N	0%	4%
Metals	Nickel	11	135	2.00E+01	5.12E+00	2.30E+00	150	N	0%	0%
Metals	Nickel	12	89	1.30E+01	5.60E+00	2.20E+00	150	N	0%	0%
Metals	Selenium	01	225	1.10E+01	4.56E-01	8.00E-02	39	N	0%	75%
Metals	Selenium	02	226	8.20E+01	1.63E+00	8.00E-02	39	Y	2%	71%
Metals	Selenium	03	64	4.10E+00	4.11E-01	8.50E-02	39	N	0%	62%
Metals	Selenium	04	106	2.00E+01	2.73E+00	8.00E-02	39	N	0%	54%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Metals	Selenium	05	161	2.10E+01	9.81E-01	8.00E-02	39	N	0%	55%
Metals	Selenium	06	115	6.20E+00	5.44E-01	8.00E-02	39	N	0%	67%
Metals	Selenium	07	71	2.90E+01	3.83E+00	2.60E-01	39	N	0%	24%
Metals	Selenium	08	131	3.50E+01	1.86E+00	8.00E-02	39	N	0%	40%
Metals	Selenium	09	143	2.20E+01	1.73E+00	8.00E-02	39	N	0%	58%
Metals	Selenium	10	173	3.60E+01	1.87E+00	8.00E-02	39	N	0%	59%
Metals	Selenium	11	200	1.50E+01	6.02E-01	8.00E-02	39	N	0%	64%
Metals	Selenium	12	89	1.30E+01	1.54E+00	8.00E-02	39	N	0%	57%
Metals	Silver	01	190	2.00E+00	1.11E-01	6.50E-04	39	N	0%	62%
Metals	Silver	02	165	4.20E+00	1.07E-01	6.50E-04	39	N	0%	51%
Metals	Silver	03	51	4.50E-01	9.28E-02	2.05E-02	39	N	0%	24%
Metals	Silver	04	48	4.80E-01	1.14E-01	2.15E-02	39	N	0%	32%
Metals	Silver	05	76	2.30E-01	8.40E-02	6.00E-04	39	N	0%	42%
Metals	Silver	06	87	7.00E-01	1.04E-01	6.00E-04	39	N	0%	55%
Metals	Silver	07	30	5.70E-01	1.47E-01	3.30E-02	39	N	0%	0%
Metals	Silver	08	85	1.40E+00	1.52E-01	3.00E-02	39	N	0%	15%
Metals	Silver	09	119	1.50E+00	1.10E-01	1.60E-02	39	N	0%	39%
Metals	Silver	10	131	2.10E+00	2.33E-01	1.75E-02	39	N	0%	26%
Metals	Silver	11	135	4.00E-01	6.77E-02	6.00E-04	39	N	0%	28%
Metals	Silver	12	89	6.30E-01	1.32E-01	2.50E-02	39	N	0%	42%
Metals	Thallium	01	225	1.40E+00	1.59E-01	2.40E-02	0.078	Y	88%	55%
Metals	Thallium	02	226	2.40E+00	2.21E-01	1.05E-03	0.078	Y	81%	45%
Metals	Thallium	03	64	4.60E-01	1.14E-01	1.60E-02	0.078	Y	72%	41%
Metals	Thallium	04	106	4.70E+00	3.93E-01	4.20E-03	0.078	Y	80%	44%
Metals	Thallium	05	161	7.00E-01	1.33E-01	5.20E-03	0.078	Y	81%	60%
Metals	Thallium	06	115	1.00E+00	1.44E-01	7.50E-03	0.078	Y	66%	61%
Metals	Thallium	07	71	4.00E+01	2.15E+00	1.50E-02	0.078	Y	100%	46%
Metals	Thallium	08	131	2.30E+00	1.91E-01	1.05E-03	0.078	Y	77%	54%
Metals	Thallium	09	143	1.60E+01	6.54E-01	1.00E-03	0.078	Y	83%	40%
Metals	Thallium	10	173	4.20E+00	1.62E-01	1.05E-03	0.078	Y	71%	67%
Metals	Thallium	11	200	4.50E+00	1.65E-01	1.05E-03	0.078	Y	77%	41%
Metals	Thallium	12	89	5.80E+00	1.82E-01	1.10E-03	0.078	Y	79%	46%
Metals	Uranium	01	111	1.30E+01	1.49E+00	5.99E-01	23	N	0%	0%
Metals	Uranium	02	74	2.57E+01	2.25E+00	7.24E-01	23	Y	3%	0%
Metals	Uranium	03	61	6.03E+00	1.88E+00	6.38E-01	23	N	0%	0%
Metals	Uranium	04	102	1.10E+01	1.96E+00	7.14E-01	23	N	0%	0%
Metals	Uranium	05	135	1.30E+02	3.42E+00	5.00E-01	23	Y	2%	0%
Metals	Uranium	06	111	1.45E+01	1.64E+00	6.54E-01	23	N	0%	0%
Metals	Uranium	07	71	3.29E+01	4.56E+00	2.50E-01	23	Y	8%	1%
Metals	Uranium	08	65	1.50E+02	1.01E+01	7.32E-01	23	Y	5%	0%
Metals	Uranium	09	143	5.38E+01	6.98E+00	2.50E-01	23	Y	22%	1%
Metals	Uranium	10	107	2.52E+01	2.62E+00	1.31E-01	23	Y	3%	2%
Metals	Uranium	11	77	4.29E+01	3.13E+00	5.00E-01	23	Y	3%	0%
Metals	Uranium	12	63	1.07E+01	2.01E+00	2.50E-01	23	N	0%	1%
Metals	Vanadium	01	190	5.30E+01	2.16E+01	9.70E+00	39	Y	7%	0%
Metals	Vanadium	02	165	3.50E+01	1.61E+01	6.00E+00	39	N	0%	0%
Metals	Vanadium	03	51	2.90E+01	1.61E+01	8.60E+00	39	N	0%	0%
Metals	Vanadium	04	48	3.00E+01	1.60E+01	8.20E+00	39	N	0%	0%
Metals	Vanadium	05	76	3.90E+01	1.66E+01	7.50E+00	39	Y	3%	0%
Metals	Vanadium	06	87	4.90E+01	1.70E+01	9.20E+00	39	Y	5%	0%
Metals	Vanadium	07	30	6.20E+01	1.58E+01	4.90E+00	39	Y	10%	0%
Metals	Vanadium	08	85	4.10E+01	1.62E+01	2.80E+00	39	Y	8%	0%
Metals	Vanadium	09	119	4.10E+01	1.96E+01	7.40E+00	39	Y	7%	0%
Metals	Vanadium	10	131	4.90E+01	1.71E+01	1.80E+00	39	Y	8%	0%
Metals	Vanadium	11	135	4.00E+01	1.42E+01	7.60E+00	39	Y	2%	0%
Metals	Vanadium	12	89	7.90E+01	2.15E+01	6.80E+00	39	Y	9%	0%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Metals	Zinc	01	190	2.30E+03	5.99E+01	8.00E+00	2300	Y	1%	4%
Metals	Zinc	02	165	7.10E+03	1.39E+02	8.50E+00	2300	Y	1%	3%
Metals	Zinc	03	51	3.70E+01	1.75E+01	5.50E+00	2300	N	0%	4%
Metals	Zinc	04	48	9.00E+01	3.00E+01	1.10E+01	2300	N	0%	0%
Metals	Zinc	05	76	4.60E+02	3.21E+01	5.50E+00	2300	N	0%	6%
Metals	Zinc	06	87	2.00E+02	2.52E+01	9.00E+00	2300	N	0%	12%
Metals	Zinc	07	30	2.30E+01	1.18E+01	5.90E+00	2300	N	0%	0%
Metals	Zinc	08	85	6.00E+01	1.76E+01	3.20E+00	2300	N	0%	0%
Metals	Zinc	09	119	9.30E+01	1.89E+01	5.80E+00	2300	N	0%	1%
Metals	Zinc	10	131	2.20E+02	1.82E+01	1.30E+00	2300	N	0%	16%
Metals	Zinc	11	135	5.70E+02	2.30E+01	8.80E+00	2300	N	0%	2%
Metals	Zinc	12	89	1.80E+02	2.48E+01	7.50E+00	2300	N	0%	0%
PCBs	Aroclor 1016	01	95	1.95E-02	2.84E-03	9.00E-04	0.41	N	0%	100%
PCBs	Aroclor 1016	02	141	1.85E-02	2.18E-03	9.00E-04	0.41	N	0%	100%
PCBs	Aroclor 1016	03	38	6.50E-03	2.59E-03	9.00E-04	0.41	N	0%	100%
PCBs	Aroclor 1016	04	48	9.00E-03	4.63E-03	9.00E-04	0.41	N	0%	100%
PCBs	Aroclor 1016	05	44	9.00E-03	2.67E-03	9.00E-04	0.41	N	0%	100%
PCBs	Aroclor 1016	06	55	6.00E-03	2.27E-03	9.00E-04	0.41	N	0%	100%
PCBs	Aroclor 1016	07	30	6.00E-03	1.97E-03	9.00E-04	0.41	N	0%	100%
PCBs	Aroclor 1016	08	73	3.10E-03	1.34E-03	9.00E-04	0.41	N	0%	100%
PCBs	Aroclor 1016	09	83	1.40E+00	1.83E-02	9.00E-04	0.41	Y	5%	99%
PCBs	Aroclor 1016	10	86	1.30E-02	2.96E-03	9.00E-04	0.41	N	0%	100%
PCBs	Aroclor 1016	11	135	4.85E-02	3.54E-03	9.00E-04	0.41	N	0%	100%
PCBs	Aroclor 1016	12	50	6.50E-03	4.31E-03	9.00E-04	0.41	N	0%	100%
PCBs	Aroclor 1221	01	95	2.20E-01	1.08E-02	5.00E-03	0.2	Y	2%	100%
PCBs	Aroclor 1221	02	141	2.10E-01	1.10E-02	5.00E-03	0.2	Y	2%	100%
PCBs	Aroclor 1221	03	38	1.10E-02	7.57E-03	2.35E-03	0.2	N	0%	100%
PCBs	Aroclor 1221	04	48	1.05E-02	6.52E-03	5.00E-03	0.2	N	0%	100%
PCBs	Aroclor 1221	05	44	1.05E-01	1.30E-02	2.35E-03	0.2	N	0%	100%
PCBs	Aroclor 1221	06	55	1.10E-02	7.60E-03	5.00E-03	0.2	N	0%	100%
PCBs	Aroclor 1221	07	30	1.25E-02	9.88E-03	6.00E-03	0.2	N	0%	100%
PCBs	Aroclor 1221	08	73	1.15E-02	9.62E-03	5.00E-03	0.2	N	0%	100%
PCBs	Aroclor 1221	09	83	1.15E-01	1.43E-02	6.00E-03	0.2	N	0%	100%
PCBs	Aroclor 1221	10	86	1.30E-02	8.78E-03	2.25E-03	0.2	N	0%	100%
PCBs	Aroclor 1221	11	135	5.50E-01	1.39E-02	5.00E-03	0.2	Y	5%	100%
PCBs	Aroclor 1221	12	50	1.10E-02	7.69E-03	6.00E-03	0.2	N	0%	100%
PCBs	Aroclor 1232	01	95	2.20E-01	1.16E-02	6.50E-03	0.17	Y	2%	100%
PCBs	Aroclor 1232	02	141	2.10E-01	1.25E-02	8.50E-03	0.17	Y	2%	100%
PCBs	Aroclor 1232	03	38	1.10E-02	7.83E-03	3.10E-03	0.17	N	0%	100%
PCBs	Aroclor 1232	04	48	1.05E-02	8.14E-03	6.00E-03	0.17	N	0%	100%
PCBs	Aroclor 1232	05	44	1.05E-01	1.48E-02	3.10E-03	0.17	N	0%	100%
PCBs	Aroclor 1232	06	55	1.10E-02	9.85E-03	6.00E-03	0.17	N	0%	100%
PCBs	Aroclor 1232	07	30	1.25E-02	9.88E-03	6.00E-03	0.17	N	0%	100%
PCBs	Aroclor 1232	08	73	1.15E-02	1.04E-02	9.50E-03	0.17	N	0%	100%
PCBs	Aroclor 1232	09	83	1.15E-01	1.43E-02	6.00E-03	0.17	N	0%	100%
PCBs	Aroclor 1232	10	86	1.30E-02	9.15E-03	3.00E-03	0.17	N	0%	100%
PCBs	Aroclor 1232	11	135	5.50E-01	1.48E-02	6.00E-03	0.17	Y	5%	100%
PCBs	Aroclor 1232	12	50	1.10E-02	7.69E-03	6.00E-03	0.17	N	0%	100%
PCBs	Aroclor 1242	01	95	2.20E-01	1.08E-02	4.95E-03	0.23	N	0%	100%
PCBs	Aroclor 1242	02	141	2.10E-01	1.09E-02	4.95E-03	0.23	N	0%	100%
PCBs	Aroclor 1242	03	38	1.10E-02	9.64E-03	6.50E-03	0.23	N	0%	100%
PCBs	Aroclor 1242	04	48	1.05E-02	6.32E-03	4.95E-03	0.23	N	0%	100%
PCBs	Aroclor 1242	05	44	1.05E-01	1.49E-02	4.95E-03	0.23	N	0%	96%
PCBs	Aroclor 1242	06	55	1.10E-02	7.41E-03	4.95E-03	0.23	N	0%	100%
PCBs	Aroclor 1242	07	30	1.25E-02	9.88E-03	6.00E-03	0.23	N	0%	100%
PCBs	Aroclor 1242	08	73	1.15E-02	9.54E-03	4.95E-03	0.23	N	0%	100%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
PCBs	Aroclor 1242	09	83	1.15E-01	1.43E-02	6.00E-03	0.23	N	0%	100%
PCBs	Aroclor 1242	10	86	1.30E-02	8.99E-03	4.95E-03	0.23	N	0%	100%
PCBs	Aroclor 1242	11	135	5.50E-01	1.39E-02	4.95E-03	0.23	Y	2%	100%
PCBs	Aroclor 1242	12	50	1.10E-02	7.69E-03	6.00E-03	0.23	N	0%	100%
PCBs	Aroclor 1248	01	95	2.20E-01	1.11E-02	6.50E-03	0.23	N	0%	100%
PCBs	Aroclor 1248	02	141	2.10E-01	1.15E-02	6.50E-03	0.23	N	0%	100%
PCBs	Aroclor 1248	03	38	1.10E-02	8.55E-03	5.00E-03	0.23	N	0%	100%
PCBs	Aroclor 1248	04	48	3.40E-02	8.42E-03	6.00E-03	0.23	N	0%	100%
PCBs	Aroclor 1248	05	44	1.05E-01	1.37E-02	5.00E-03	0.23	N	0%	100%
PCBs	Aroclor 1248	06	55	1.10E-02	8.32E-03	6.00E-03	0.23	N	0%	100%
PCBs	Aroclor 1248	07	30	1.25E-02	9.88E-03	6.00E-03	0.23	N	0%	100%
PCBs	Aroclor 1248	08	73	3.90E-01	2.73E-02	6.50E-03	0.23	Y	5%	95%
PCBs	Aroclor 1248	09	83	1.15E-01	1.43E-02	6.00E-03	0.23	N	0%	100%
PCBs	Aroclor 1248	10	86	1.30E-02	9.02E-03	5.00E-03	0.23	N	0%	100%
PCBs	Aroclor 1248	11	135	5.50E-01	1.42E-02	6.00E-03	0.23	Y	2%	100%
PCBs	Aroclor 1248	12	50	1.10E-02	7.69E-03	6.00E-03	0.23	N	0%	100%
PCBs	Aroclor 1254	01	95	2.20E-01	1.12E-02	6.50E-03	0.12	Y	2%	100%
PCBs	Aroclor 1254	02	141	2.10E-01	1.16E-02	7.00E-03	0.12	Y	2%	100%
PCBs	Aroclor 1254	03	38	1.10E-02	9.64E-03	6.50E-03	0.12	N	0%	100%
PCBs	Aroclor 1254	04	48	5.60E+00	2.90E-01	6.00E-03	0.12	Y	10%	88%
PCBs	Aroclor 1254	05	44	1.05E-01	1.65E-02	6.50E-03	0.12	N	0%	92%
PCBs	Aroclor 1254	06	55	4.20E-02	9.76E-03	6.00E-03	0.12	N	0%	96%
PCBs	Aroclor 1254	07	30	1.25E-02	9.88E-03	6.00E-03	0.12	N	0%	100%
PCBs	Aroclor 1254	08	73	9.50E-02	1.45E-02	7.00E-03	0.12	N	0%	94%
PCBs	Aroclor 1254	09	83	1.15E-01	1.43E-02	6.00E-03	0.12	N	0%	100%
PCBs	Aroclor 1254	10	86	1.30E-02	9.16E-03	6.00E-03	0.12	N	0%	100%
PCBs	Aroclor 1254	11	135	5.50E-01	1.43E-02	6.00E-03	0.12	Y	5%	100%
PCBs	Aroclor 1254	12	50	1.10E-02	7.69E-03	6.00E-03	0.12	N	0%	100%
PCBs	Aroclor 1260	01	95	1.45E-02	2.70E-03	6.50E-04	0.24	N	0%	100%
PCBs	Aroclor 1260	02	141	1.60E-01	4.68E-03	6.50E-04	0.24	N	0%	98%
PCBs	Aroclor 1260	03	38	7.50E-03	3.25E-03	6.50E-04	0.24	N	0%	100%
PCBs	Aroclor 1260	04	48	1.70E-02	5.39E-03	6.50E-04	0.24	N	0%	100%
PCBs	Aroclor 1260	05	44	7.50E-03	2.67E-03	6.50E-04	0.24	N	0%	100%
PCBs	Aroclor 1260	06	55	6.00E-03	2.31E-03	6.50E-04	0.24	N	0%	100%
PCBs	Aroclor 1260	07	30	6.00E-03	1.77E-03	7.00E-04	0.24	N	0%	100%
PCBs	Aroclor 1260	08	73	8.90E-03	1.32E-03	6.50E-04	0.24	N	0%	99%
PCBs	Aroclor 1260	09	83	1.10E+00	1.49E-02	6.50E-04	0.24	Y	5%	98%
PCBs	Aroclor 1260	10	86	1.50E-02	3.08E-03	6.50E-04	0.24	N	0%	100%
PCBs	Aroclor 1260	11	135	3.60E-02	3.45E-03	6.50E-04	0.24	N	0%	99%
PCBs	Aroclor 1260	12	50	1.30E-02	4.41E-03	6.50E-04	0.24	N	0%	97%
Pesticides	2,4,5-TP (Silvex)	01	86	2.00E-02	7.20E-03	3.45E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	02	133	2.00E-02	8.86E-03	3.45E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	03	37	3.75E-03	3.62E-03	3.50E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	04	40	3.60E-02	1.11E-02	3.55E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	05	45	2.00E-02	1.15E-02	3.55E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	06	55	2.00E-02	1.20E-02	3.52E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	07	30	4.26E-03	3.75E-03	3.56E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	08	73	2.00E-02	6.60E-03	3.50E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	09	82	2.00E-02	4.02E-03	3.50E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	10	85	2.00E-02	5.06E-03	3.48E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	11	131	2.00E-02	7.45E-03	3.52E-03	51	N	0%	100%
Pesticides	2,4,5-TP (Silvex)	12	47	5.75E-03	3.75E-03	3.52E-03	51	N	0%	100%
Pesticides	4,4'-DDD	01	92	3.50E-02	2.05E-03	6.00E-04	2.3	N	0%	95%
Pesticides	4,4'-DDD	02	146	1.60E-01	4.58E-03	6.00E-04	2.3	N	0%	88%
Pesticides	4,4'-DDD	03	37	1.60E-03	7.71E-04	1.55E-04	2.3	N	0%	94%
Pesticides	4,4'-DDD	04	48	7.30E-03	1.01E-03	9.00E-05	2.3	N	0%	89%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Pesticides	4,4'-DDD	05	46	9.50E-03	1.10E-03	1.55E-04	2.3	N	0%	98%
Pesticides	4,4'-DDD	06	62	1.05E-03	7.44E-04	9.00E-05	2.3	N	0%	100%
Pesticides	4,4'-DDD	07	30	1.15E-03	8.34E-04	9.00E-05	2.3	N	0%	97%
Pesticides	4,4'-DDD	08	76	1.70E-03	8.23E-04	1.55E-04	2.3	N	0%	98%
Pesticides	4,4'-DDD	09	91	1.70E-01	5.89E-03	9.00E-05	2.3	N	0%	92%
Pesticides	4,4'-DDD	10	87	1.05E-03	6.91E-04	9.00E-05	2.3	N	0%	100%
Pesticides	4,4'-DDD	11	142	3.60E-01	6.20E-03	9.00E-05	2.3	N	0%	90%
Pesticides	4,4'-DDD	12	47	1.05E-03	4.64E-04	9.00E-05	2.3	N	0%	100%
Pesticides	4,4'-DDE	01	92	1.50E-01	5.07E-03	3.30E-04	2	N	0%	93%
Pesticides	4,4'-DDE	02	146	3.00E-01	6.40E-03	3.35E-04	2	N	0%	83%
Pesticides	4,4'-DDE	03	37	7.80E-03	7.09E-04	1.05E-04	2	N	0%	94%
Pesticides	4,4'-DDE	04	48	3.60E-02	3.78E-03	6.50E-05	2	N	0%	80%
Pesticides	4,4'-DDE	05	46	2.00E-02	1.50E-03	1.05E-04	2	N	0%	88%
Pesticides	4,4'-DDE	06	62	5.00E-03	8.09E-04	6.50E-05	2	N	0%	96%
Pesticides	4,4'-DDE	07	30	4.00E-04	3.04E-04	6.50E-05	2	N	0%	97%
Pesticides	4,4'-DDE	08	76	1.00E-03	4.52E-04	1.00E-04	2	N	0%	94%
Pesticides	4,4'-DDE	09	91	2.50E-01	6.39E-03	6.50E-05	2	N	0%	87%
Pesticides	4,4'-DDE	10	87	1.10E-03	3.27E-04	6.50E-05	2	N	0%	99%
Pesticides	4,4'-DDE	11	142	4.80E-01	9.60E-03	6.50E-05	2	N	0%	87%
Pesticides	4,4'-DDE	12	47	2.60E-03	2.25E-04	6.50E-05	2	N	0%	98%
Pesticides	4,4'-DDT	01	93	1.70E-01	7.56E-03	4.40E-04	1.9	N	0%	76%
Pesticides	4,4'-DDT	02	146	3.00E+00	4.97E-02	4.40E-04	1.9	Y	2%	67%
Pesticides	4,4'-DDT	03	37	1.30E-02	1.55E-03	2.10E-04	1.9	N	0%	92%
Pesticides	4,4'-DDT	04	48	3.70E-02	3.78E-03	5.00E-05	1.9	N	0%	68%
Pesticides	4,4'-DDT	05	48	1.10E-02	1.85E-03	2.10E-04	1.9	N	0%	83%
Pesticides	4,4'-DDT	06	62	1.10E-02	1.24E-03	5.00E-05	1.9	N	0%	93%
Pesticides	4,4'-DDT	07	30	5.70E-03	1.41E-03	5.00E-05	1.9	N	0%	77%
Pesticides	4,4'-DDT	08	76	1.90E-02	1.62E-03	2.05E-04	1.9	N	0%	89%
Pesticides	4,4'-DDT	09	91	2.00E+00	4.35E-02	5.00E-05	1.9	Y	4%	86%
Pesticides	4,4'-DDT	10	87	6.30E-03	1.07E-03	5.00E-05	1.9	N	0%	90%
Pesticides	4,4'-DDT	11	142	1.90E+00	4.74E-02	5.00E-05	1.9	Y	2%	75%
Pesticides	4,4'-DDT	12	47	1.20E-02	7.16E-04	5.00E-05	1.9	N	0%	95%
Pesticides	Aldrin	01	92	5.70E-03	2.47E-04	1.05E-04	0.039	N	0%	99%
Pesticides	Aldrin	02	145	2.15E-03	2.36E-04	1.05E-04	0.039	N	0%	99%
Pesticides	Aldrin	03	37	8.50E-04	1.70E-04	1.05E-04	0.039	N	0%	88%
Pesticides	Aldrin	04	48	5.50E-04	2.36E-04	1.05E-04	0.039	N	0%	100%
Pesticides	Aldrin	05	46	1.05E-03	2.66E-04	1.05E-04	0.039	N	0%	100%
Pesticides	Aldrin	06	62	3.80E-04	2.53E-04	1.05E-04	0.039	N	0%	100%
Pesticides	Aldrin	07	30	2.50E-04	1.15E-04	1.05E-04	0.039	N	0%	97%
Pesticides	Aldrin	08	76	3.80E-04	1.67E-04	1.00E-04	0.039	N	0%	100%
Pesticides	Aldrin	09	91	3.80E-02	8.26E-04	1.05E-04	0.039	N	0%	97%
Pesticides	Aldrin	10	87	3.80E-04	1.30E-04	1.00E-04	0.039	N	0%	100%
Pesticides	Aldrin	11	142	2.10E-02	3.53E-04	1.05E-04	0.039	N	0%	98%
Pesticides	Aldrin	12	47	1.10E-04	1.09E-04	1.05E-04	0.039	N	0%	100%
Pesticides	alpha Endosulfan (Endosulfan I)	01	92	6.00E-03	4.55E-04	2.80E-04	47	N	0%	100%
Pesticides	alpha Endosulfan (Endosulfan I)	02	146	6.00E-03	5.16E-04	2.80E-04	47	N	0%	100%
Pesticides	alpha Endosulfan (Endosulfan I)	03	37	3.00E-04	2.35E-04	1.05E-04	47	N	0%	94%
Pesticides	alpha Endosulfan (Endosulfan I)	04	48	7.00E-04	4.08E-04	1.30E-04	47	N	0%	100%
Pesticides	alpha Endosulfan (Endosulfan I)	05	46	2.85E-03	5.50E-04	1.05E-04	47	N	0%	100%
Pesticides	alpha Endosulfan (Endosulfan I)	06	62	7.00E-04	5.04E-04	1.30E-04	47	N	0%	100%
Pesticides	alpha Endosulfan (Endosulfan I)	07	30	3.35E-04	2.64E-04	1.30E-04	47	N	0%	100%
Pesticides	alpha Endosulfan (Endosulfan I)	08	76	7.00E-04	3.43E-04	1.00E-04	47	N	0%	97%
Pesticides	alpha Endosulfan (Endosulfan I)	09	91	2.10E-02	7.94E-04	1.30E-04	47	N	0%	96%
Pesticides	alpha Endosulfan (Endosulfan I)	10	87	7.00E-04	2.76E-04	1.00E-04	47	N	0%	100%
Pesticides	alpha Endosulfan (Endosulfan I)	11	142	1.50E-02	4.63E-04	1.30E-04	47	N	0%	100%
Pesticides	alpha Endosulfan (Endosulfan I)	12	47	3.05E-04	1.97E-04	1.30E-04	47	N	0%	100%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Pesticides	beta Endosulfan (Endosulfan II)	01	92	8.50E-03	5.82E-04	3.90E-04	47	N	0%	100%
Pesticides	beta Endosulfan (Endosulfan II)	02	146	1.20E-02	8.17E-04	3.95E-04	47	N	0%	98%
Pesticides	beta Endosulfan (Endosulfan II)	03	37	4.15E-04	3.16E-04	1.55E-04	47	N	0%	100%
Pesticides	beta Endosulfan (Endosulfan II)	04	48	2.00E-03	5.11E-04	1.65E-04	47	N	0%	97%
Pesticides	beta Endosulfan (Endosulfan II)	05	46	4.00E-03	6.70E-04	1.55E-04	47	N	0%	100%
Pesticides	beta Endosulfan (Endosulfan II)	06	62	7.50E-04	5.81E-04	1.65E-04	47	N	0%	100%
Pesticides	beta Endosulfan (Endosulfan II)	07	30	4.70E-04	3.65E-04	1.65E-04	47	N	0%	100%
Pesticides	beta Endosulfan (Endosulfan II)	08	76	7.50E-04	4.37E-04	1.55E-04	47	N	0%	99%
Pesticides	beta Endosulfan (Endosulfan II)	09	91	4.40E-03	5.81E-04	1.65E-04	47	N	0%	100%
Pesticides	beta Endosulfan (Endosulfan II)	10	87	7.50E-04	3.68E-04	1.50E-04	47	N	0%	99%
Pesticides	beta Endosulfan (Endosulfan II)	11	142	2.10E-02	7.03E-04	1.65E-04	47	N	0%	97%
Pesticides	beta Endosulfan (Endosulfan II)	12	47	4.25E-04	2.65E-04	1.65E-04	47	N	0%	100%
Pesticides	BHC, alpha	01	92	1.60E-02	4.05E-04	9.00E-05	0.086	N	0%	94%
Pesticides	BHC, alpha	02	146	2.00E-02	5.01E-04	9.00E-05	0.086	N	0%	93%
Pesticides	BHC, alpha	03	37	5.30E-03	4.50E-04	9.00E-05	0.086	N	0%	94%
Pesticides	BHC, alpha	04	48	3.00E-03	3.02E-04	9.00E-05	0.086	N	0%	99%
Pesticides	BHC, alpha	05	46	9.00E-04	3.11E-04	9.00E-05	0.086	N	0%	98%
Pesticides	BHC, alpha	06	62	4.65E-04	2.92E-04	9.00E-05	0.086	N	0%	100%
Pesticides	BHC, alpha	07	30	1.00E-02	6.19E-04	9.00E-05	0.086	N	0%	80%
Pesticides	BHC, alpha	08	76	1.80E-03	2.52E-04	9.00E-05	0.086	N	0%	91%
Pesticides	BHC, alpha	09	91	5.30E-02	1.58E-03	9.00E-05	0.086	N	0%	82%
Pesticides	BHC, alpha	10	87	4.65E-04	1.35E-04	9.00E-05	0.086	N	0%	99%
Pesticides	BHC, alpha	11	142	2.90E-02	6.67E-04	9.00E-05	0.086	N	0%	94%
Pesticides	BHC, alpha	12	47	4.70E-02	1.71E-03	9.00E-05	0.086	N	0%	88%
Pesticides	BHC, beta	01	92	1.90E-02	4.00E-04	1.40E-04	0.3	N	0%	99%
Pesticides	BHC, beta	02	146	1.20E-02	3.34E-04	1.40E-04	0.3	N	0%	97%
Pesticides	BHC, beta	03	37	9.90E-04	2.31E-04	1.40E-04	0.3	N	0%	88%
Pesticides	BHC, beta	04	48	3.00E-03	2.32E-04	7.50E-05	0.3	N	0%	99%
Pesticides	BHC, beta	05	46	1.45E-03	2.83E-04	1.40E-04	0.3	N	0%	100%
Pesticides	BHC, beta	06	62	4.30E-04	2.40E-04	7.50E-05	0.3	N	0%	99%
Pesticides	BHC, beta	07	30	1.70E-04	1.35E-04	7.50E-05	0.3	N	0%	100%
Pesticides	BHC, beta	08	76	6.00E-03	4.31E-04	1.40E-04	0.3	N	0%	95%
Pesticides	BHC, beta	09	91	6.70E-02	1.65E-03	7.50E-05	0.3	N	0%	92%
Pesticides	BHC, beta	10	87	5.30E-04	1.49E-04	7.50E-05	0.3	N	0%	99%
Pesticides	BHC, beta	11	142	7.50E-03	3.39E-04	7.50E-05	0.3	N	0%	95%
Pesticides	BHC, beta	12	47	1.50E-04	1.05E-04	7.50E-05	0.3	N	0%	100%
Pesticides	BHC, delta	01	92	1.40E-02	3.72E-04	1.50E-04	0.57	N	0%	96%
Pesticides	BHC, delta	02	146	7.70E-03	3.17E-04	1.50E-04	0.57	N	0%	96%
Pesticides	BHC, delta	03	37	7.10E-03	6.11E-04	1.50E-04	0.57	N	0%	94%
Pesticides	BHC, delta	04	48	3.20E-04	1.87E-04	5.50E-05	0.57	N	0%	100%
Pesticides	BHC, delta	05	46	1.50E-03	3.11E-04	1.50E-04	0.57	N	0%	96%
Pesticides	BHC, delta	06	62	3.20E-04	2.40E-04	5.50E-05	0.57	N	0%	100%
Pesticides	BHC, delta	07	30	1.00E-03	1.66E-04	5.50E-05	0.57	N	0%	97%
Pesticides	BHC, delta	08	76	3.25E-04	2.06E-04	1.50E-04	0.57	N	0%	100%
Pesticides	BHC, delta	09	91	2.60E-02	7.16E-04	5.50E-05	0.57	N	0%	89%
Pesticides	BHC, delta	10	87	6.90E-04	1.55E-04	5.50E-05	0.57	N	0%	99%
Pesticides	BHC, delta	11	142	8.00E-03	2.58E-04	5.50E-05	0.57	N	0%	96%
Pesticides	BHC, delta	12	47	1.60E-04	9.67E-05	5.50E-05	0.57	N	0%	100%
Pesticides	BHC, gamma (Lindane)	01	92	1.40E-02	6.83E-04	1.00E-04	0.57	N	0%	96%
Pesticides	BHC, gamma (Lindane)	02	146	4.30E-03	2.33E-04	1.00E-04	0.57	N	0%	99%
Pesticides	BHC, gamma (Lindane)	03	37	9.80E-03	6.74E-04	1.00E-04	0.57	N	0%	94%
Pesticides	BHC, gamma (Lindane)	04	47	3.15E-04	1.83E-04	7.00E-05	0.57	N	0%	100%
Pesticides	BHC, gamma (Lindane)	05	46	2.60E-03	2.82E-04	1.00E-04	0.57	N	0%	98%
Pesticides	BHC, gamma (Lindane)	06	62	3.15E-04	2.15E-04	7.00E-05	0.57	N	0%	100%
Pesticides	BHC, gamma (Lindane)	07	30	1.20E-04	9.88E-05	7.00E-05	0.57	N	0%	100%
Pesticides	BHC, gamma (Lindane)	08	76	1.00E-03	1.55E-04	1.00E-04	0.57	N	0%	97%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Pesticides	BHC, gamma (Lindane)	09	91	7.50E-03	4.16E-04	7.00E-05	0.57	N	0%	92%
Pesticides	BHC, gamma (Lindane)	10	87	3.15E-04	1.12E-04	7.00E-05	0.57	N	0%	100%
Pesticides	BHC, gamma (Lindane)	11	142	5.50E-03	2.32E-04	7.00E-05	0.57	N	0%	96%
Pesticides	BHC, gamma (Lindane)	12	47	1.10E-04	8.44E-05	7.00E-05	0.57	N	0%	100%
Pesticides	Chlordane, alpha	01	92	1.10E-02	6.18E-04	3.60E-04	1.7	N	0%	100%
Pesticides	Chlordane, alpha	02	146	3.30E-02	1.11E-03	3.60E-04	1.7	N	0%	98%
Pesticides	Chlordane, alpha	03	37	5.50E-04	1.83E-04	1.40E-05	1.7	N	0%	94%
Pesticides	Chlordane, alpha	04	48	7.00E-04	2.87E-04	1.35E-04	1.7	N	0%	100%
Pesticides	Chlordane, alpha	05	46	5.00E-03	5.80E-04	1.05E-04	1.7	N	0%	100%
Pesticides	Chlordane, alpha	06	62	5.50E-04	4.23E-04	1.35E-04	1.7	N	0%	100%
Pesticides	Chlordane, alpha	07	30	6.00E-04	4.62E-04	1.35E-04	1.7	N	0%	100%
Pesticides	Chlordane, alpha	08	76	5.70E-04	4.53E-04	1.00E-04	1.7	N	0%	96%
Pesticides	Chlordane, alpha	09	91	2.05E-02	9.96E-04	1.35E-04	1.7	N	0%	100%
Pesticides	Chlordane, alpha	10	87	5.50E-04	3.96E-04	1.00E-04	1.7	N	0%	100%
Pesticides	Chlordane, alpha	11	142	2.75E-02	6.59E-04	1.35E-04	1.7	N	0%	99%
Pesticides	Chlordane, alpha	12	47	5.50E-04	3.02E-04	1.35E-04	1.7	N	0%	100%
Pesticides	Chlordane, gamma	01	92	1.10E-02	6.26E-04	3.95E-04	1.7	N	0%	100%
Pesticides	Chlordane, gamma	02	146	1.05E-02	6.09E-04	3.95E-04	1.7	N	0%	100%
Pesticides	Chlordane, gamma	03	37	5.50E-04	2.36E-04	1.40E-04	1.7	N	0%	94%
Pesticides	Chlordane, gamma	04	48	7.50E-04	3.09E-04	1.50E-04	1.7	N	0%	100%
Pesticides	Chlordane, gamma	05	46	5.00E-03	6.04E-04	1.55E-04	1.7	N	0%	100%
Pesticides	Chlordane, gamma	06	62	5.50E-04	4.42E-04	1.50E-04	1.7	N	0%	100%
Pesticides	Chlordane, gamma	07	30	6.00E-04	4.65E-04	1.50E-04	1.7	N	0%	100%
Pesticides	Chlordane, gamma	08	76	5.50E-04	4.62E-04	1.55E-04	1.7	N	0%	100%
Pesticides	Chlordane, gamma	09	91	1.55E-02	9.32E-04	1.50E-04	1.7	N	0%	99%
Pesticides	Chlordane, gamma	10	87	5.50E-04	4.05E-04	1.50E-04	1.7	N	0%	100%
Pesticides	Chlordane, gamma	11	142	2.75E-02	6.48E-04	1.50E-04	1.7	N	0%	100%
Pesticides	Chlordane, gamma	12	47	5.50E-04	3.11E-04	1.50E-04	1.7	N	0%	100%
Pesticides	Dieldrin	01	92	1.80E-02	9.50E-04	3.15E-04	0.034	N	0%	97%
Pesticides	Dieldrin	02	146	2.40E-02	1.24E-03	3.15E-04	0.034	N	0%	94%
Pesticides	Dieldrin	03	37	3.35E-04	2.64E-04	1.55E-04	0.034	N	0%	100%
Pesticides	Dieldrin	04	48	4.80E-04	2.94E-04	9.00E-05	0.034	N	0%	100%
Pesticides	Dieldrin	05	46	3.20E-03	4.98E-04	1.55E-04	0.034	N	0%	98%
Pesticides	Dieldrin	06	62	4.80E-04	3.99E-04	9.00E-05	0.034	N	0%	100%
Pesticides	Dieldrin	07	30	3.75E-04	2.83E-04	9.00E-05	0.034	N	0%	100%
Pesticides	Dieldrin	08	76	4.80E-04	3.31E-04	1.55E-04	0.034	N	0%	99%
Pesticides	Dieldrin	09	91	1.55E-02	6.96E-04	9.00E-05	0.034	N	0%	98%
Pesticides	Dieldrin	10	87	4.80E-04	2.70E-04	9.00E-05	0.034	N	0%	100%
Pesticides	Dieldrin	11	142	3.90E-02	9.28E-04	9.00E-05	0.034	Y	2%	97%
Pesticides	Dieldrin	12	47	3.40E-04	1.87E-04	9.00E-05	0.034	N	0%	100%
Pesticides	Dinoseb (DNBP)	01	62	1.00E-01	2.78E-02	7.00E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	02	112	1.00E-01	3.46E-02	7.00E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	03	28	1.35E-02	7.70E-03	7.20E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	04	39	1.00E-01	3.92E-02	7.20E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	05	45	1.00E-01	5.20E-02	7.20E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	06	45	1.00E-01	5.15E-02	7.15E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	07	30	8.65E-03	7.62E-03	7.20E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	08	51	1.00E-01	2.81E-02	7.15E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	09	73	1.13E-02	7.57E-03	7.10E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	10	85	1.00E-01	1.52E-02	7.05E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	11	130	1.00E-01	2.70E-02	7.15E-03	6.3	N	0%	100%
Pesticides	Dinoseb (DNBP)	12	47	1.17E-02	7.61E-03	7.15E-03	6.3	N	0%	100%
Pesticides	Endosulfan sulfate	01	92	2.55E-02	1.38E-03	6.00E-04	47	N	0%	100%
Pesticides	Endosulfan sulfate	02	146	2.50E-02	1.32E-03	6.00E-04	47	N	0%	100%
Pesticides	Endosulfan sulfate	03	37	1.30E-03	8.60E-04	1.55E-04	47	N	0%	94%
Pesticides	Endosulfan sulfate	04	48	8.20E-03	6.11E-04	2.15E-04	47	N	0%	99%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Pesticides	Endosulfan sulfate	05	46	1.20E-02	1.27E-03	1.55E-04	47	N	0%	98%
Pesticides	Endosulfan sulfate	06	62	1.30E-03	8.61E-04	2.15E-04	47	N	0%	100%
Pesticides	Endosulfan sulfate	07	30	1.45E-03	1.06E-03	2.15E-04	47	N	0%	100%
Pesticides	Endosulfan sulfate	08	76	1.35E-03	9.96E-04	1.55E-04	47	N	0%	96%
Pesticides	Endosulfan sulfate	09	91	2.05E-02	1.91E-03	2.15E-04	47	N	0%	100%
Pesticides	Endosulfan sulfate	10	87	1.30E-03	8.90E-04	1.50E-04	47	N	0%	99%
Pesticides	Endosulfan sulfate	11	142	6.50E-02	1.35E-03	2.15E-04	47	N	0%	100%
Pesticides	Endosulfan sulfate	12	47	1.30E-03	6.45E-04	2.15E-04	47	N	0%	100%
Pesticides	Endrin	01	92	5.00E-02	2.13E-03	3.40E-04	1.9	N	0%	95%
Pesticides	Endrin	02	146	7.00E-03	5.09E-04	3.40E-04	1.9	N	0%	98%
Pesticides	Endrin	03	37	1.10E-03	3.67E-04	2.10E-04	1.9	N	0%	92%
Pesticides	Endrin	04	48	4.80E-03	3.46E-04	9.00E-05	1.9	N	0%	99%
Pesticides	Endrin	05	46	3.45E-03	5.03E-04	2.05E-04	1.9	N	0%	100%
Pesticides	Endrin	06	62	4.55E-04	3.97E-04	9.00E-05	1.9	N	0%	100%
Pesticides	Endrin	07	30	4.10E-04	3.06E-04	9.00E-05	1.9	N	0%	100%
Pesticides	Endrin	08	76	4.55E-04	3.53E-04	2.05E-04	1.9	N	0%	99%
Pesticides	Endrin	09	91	1.55E-02	7.10E-04	9.00E-05	1.9	N	0%	98%
Pesticides	Endrin	10	87	4.55E-04	2.87E-04	9.00E-05	1.9	N	0%	100%
Pesticides	Endrin	11	142	1.80E-02	5.15E-04	9.00E-05	1.9	N	0%	99%
Pesticides	Endrin	12	47	3.65E-04	1.99E-04	9.00E-05	1.9	N	0%	100%
Pesticides	Endrin aldehyde	01	92	2.60E-02	1.45E-03	8.50E-04	1.9	N	0%	100%
Pesticides	Endrin aldehyde	02	146	2.50E-02	1.69E-03	8.50E-04	1.9	N	0%	98%
Pesticides	Endrin aldehyde	03	37	1.30E-03	9.78E-04	2.60E-04	1.9	N	0%	100%
Pesticides	Endrin aldehyde	04	48	2.90E-02	1.05E-03	2.95E-04	1.9	N	0%	99%
Pesticides	Endrin aldehyde	05	45	1.30E-03	9.65E-04	2.65E-04	1.9	N	0%	100%
Pesticides	Endrin aldehyde	06	62	1.30E-03	1.00E-03	2.95E-04	1.9	N	0%	100%
Pesticides	Endrin aldehyde	07	30	1.45E-03	1.09E-03	2.95E-04	1.9	N	0%	100%
Pesticides	Endrin aldehyde	08	76	1.35E-03	1.07E-03	2.55E-04	1.9	N	0%	97%
Pesticides	Endrin aldehyde	09	82	1.55E-02	2.00E-03	7.50E-04	1.9	N	0%	100%
Pesticides	Endrin aldehyde	10	87	1.30E-03	9.41E-04	2.85E-04	1.9	N	0%	100%
Pesticides	Endrin aldehyde	11	142	6.50E-02	1.42E-03	2.95E-04	1.9	N	0%	100%
Pesticides	Endrin aldehyde	12	47	1.30E-03	6.93E-04	2.95E-04	1.9	N	0%	100%
Pesticides	Endrin ketone	01	92	2.65E-02	1.84E-03	7.50E-04	1.9	N	0%	96%
Pesticides	Endrin ketone	02	146	2.55E-02	1.46E-03	7.50E-04	1.9	N	0%	99%
Pesticides	Endrin ketone	03	37	3.50E-03	9.73E-04	1.55E-04	1.9	N	0%	92%
Pesticides	Endrin ketone	04	48	1.30E-03	5.83E-04	2.15E-04	1.9	N	0%	100%
Pesticides	Endrin ketone	05	46	1.25E-02	1.36E-03	1.55E-04	1.9	N	0%	100%
Pesticides	Endrin ketone	06	62	1.35E-03	9.57E-04	2.15E-04	1.9	N	0%	100%
Pesticides	Endrin ketone	07	30	1.50E-03	1.09E-03	2.15E-04	1.9	N	0%	100%
Pesticides	Endrin ketone	08	76	3.30E-03	1.10E-03	1.55E-04	1.9	N	0%	97%
Pesticides	Endrin ketone	09	91	2.05E-02	1.96E-03	2.15E-04	1.9	N	0%	100%
Pesticides	Endrin ketone	10	87	1.35E-03	9.20E-04	1.50E-04	1.9	N	0%	100%
Pesticides	Endrin ketone	11	142	6.50E-02	1.41E-03	2.15E-04	1.9	N	0%	100%
Pesticides	Endrin ketone	12	47	1.35E-03	6.61E-04	2.15E-04	1.9	N	0%	100%
Pesticides	Heptachlor	01	92	4.30E-03	2.98E-04	1.80E-04	0.13	N	0%	99%
Pesticides	Heptachlor	02	146	3.65E-03	3.04E-04	1.80E-04	0.13	N	0%	99%
Pesticides	Heptachlor	03	37	1.90E-04	1.55E-04	1.05E-04	0.13	N	0%	100%
Pesticides	Heptachlor	04	48	1.10E-02	6.45E-04	1.40E-04	0.13	N	0%	93%
Pesticides	Heptachlor	05	46	1.80E-03	3.09E-04	1.05E-04	0.13	N	0%	100%
Pesticides	Heptachlor	06	62	3.45E-04	2.68E-04	1.40E-04	0.13	N	0%	100%
Pesticides	Heptachlor	07	30	1.40E-03	2.26E-04	1.40E-04	0.13	N	0%	93%
Pesticides	Heptachlor	08	76	9.60E-03	5.88E-04	1.00E-04	0.13	N	0%	94%
Pesticides	Heptachlor	09	91	3.50E-02	9.50E-04	1.40E-04	0.13	N	0%	96%
Pesticides	Heptachlor	10	87	3.45E-04	1.82E-04	1.00E-04	0.13	N	0%	100%
Pesticides	Heptachlor	11	142	9.50E-03	3.56E-04	1.40E-04	0.13	N	0%	99%
Pesticides	Heptachlor	12	47	1.90E-04	1.58E-04	1.40E-04	0.13	N	0%	100%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Pesticides	Heptachlor epoxide	01	92	1.20E-02	3.80E-04	1.30E-04	0.07	N	0%	98%
Pesticides	Heptachlor epoxide	02	146	6.60E-03	3.25E-04	1.35E-04	0.07	N	0%	99%
Pesticides	Heptachlor epoxide	03	37	5.50E-04	1.52E-04	1.05E-04	0.07	N	0%	94%
Pesticides	Heptachlor epoxide	04	48	2.70E-03	2.87E-04	5.00E-05	0.07	N	0%	99%
Pesticides	Heptachlor epoxide	05	46	1.35E-03	3.66E-04	1.05E-04	0.07	N	0%	90%
Pesticides	Heptachlor epoxide	06	62	4.80E-04	3.17E-04	5.00E-05	0.07	N	0%	100%
Pesticides	Heptachlor epoxide	07	30	1.60E-04	1.22E-04	5.00E-05	0.07	N	0%	100%
Pesticides	Heptachlor epoxide	08	76	2.30E-03	2.22E-04	1.00E-04	0.07	N	0%	99%
Pesticides	Heptachlor epoxide	09	91	2.05E-02	4.89E-04	5.00E-05	0.07	N	0%	98%
Pesticides	Heptachlor epoxide	10	87	7.10E-04	1.50E-04	5.00E-05	0.07	N	0%	99%
Pesticides	Heptachlor epoxide	11	142	7.00E-03	3.34E-04	5.00E-05	0.07	N	0%	96%
Pesticides	Heptachlor epoxide	12	47	1.40E-04	8.60E-05	5.00E-05	0.07	N	0%	100%
Pesticides	Methoxychlor	01	92	5.80E-02	1.69E-03	7.50E-04	32	N	0%	96%
Pesticides	Methoxychlor	02	146	1.40E-01	2.48E-03	7.50E-04	32	N	0%	96%
Pesticides	Methoxychlor	03	37	7.70E-03	8.02E-04	2.05E-04	32	N	0%	96%
Pesticides	Methoxychlor	04	48	3.30E-02	1.03E-03	2.05E-04	32	N	0%	99%
Pesticides	Methoxychlor	05	46	7.50E-03	1.07E-03	2.10E-04	32	N	0%	96%
Pesticides	Methoxychlor	06	62	1.50E-03	8.21E-04	2.05E-04	32	N	0%	99%
Pesticides	Methoxychlor	07	30	8.50E-04	6.56E-04	2.05E-04	32	N	0%	100%
Pesticides	Methoxychlor	08	76	1.60E-03	7.61E-04	2.05E-04	32	N	0%	94%
Pesticides	Methoxychlor	09	91	1.55E-02	1.20E-03	2.05E-04	32	N	0%	100%
Pesticides	Methoxychlor	10	87	9.00E-04	6.13E-04	2.05E-04	32	N	0%	99%
Pesticides	Methoxychlor	11	142	7.80E-02	1.23E-03	2.05E-04	32	N	0%	97%
Pesticides	Methoxychlor	12	47	2.30E-03	4.77E-04	2.05E-04	32	N	0%	97%
Pesticides	Toxaphene	01	92	9.00E-01	4.39E-02	6.00E-03	0.49	Y	3%	100%
Pesticides	Toxaphene	02	146	8.50E-01	3.95E-02	6.00E-03	0.49	Y	2%	100%
Pesticides	Toxaphene	03	37	1.30E-01	4.26E-02	2.60E-02	0.49	N	0%	94%
Pesticides	Toxaphene	04	48	5.00E-02	1.26E-02	6.00E-03	0.49	N	0%	100%
Pesticides	Toxaphene	05	46	4.15E-01	3.92E-02	6.00E-03	0.49	N	0%	100%
Pesticides	Toxaphene	06	62	4.45E-02	2.16E-02	6.00E-03	0.49	N	0%	100%
Pesticides	Toxaphene	07	30	4.90E-02	3.68E-02	1.05E-02	0.49	N	0%	100%
Pesticides	Toxaphene	08	76	4.50E-02	3.34E-02	6.00E-03	0.49	N	0%	100%
Pesticides	Toxaphene	09	91	5.00E-01	6.23E-02	1.05E-02	0.49	Y	4%	100%
Pesticides	Toxaphene	10	87	4.40E-02	3.05E-02	6.00E-03	0.49	N	0%	100%
Pesticides	Toxaphene	11	142	2.20E+00	4.38E-02	6.00E-03	0.49	Y	2%	100%
Pesticides	Toxaphene	12	47	4.40E-02	2.38E-02	1.05E-02	0.49	N	0%	100%
Radionuclides	Radium-226[a]	01	111	4.93E+00	1.02E+00	4.00E-01	0.0063	Y	100%	0%
Radionuclides	Radium-226[a]	02	74	3.67E+00	1.13E+00	1.00E-01	0.0063	Y	100%	3%
Radionuclides	Radium-226[a]	03	61	1.67E+00	9.78E-01	1.00E-01	0.0063	Y	100%	12%
Radionuclides	Radium-226[a]	04	102	9.02E+00	1.57E+00	5.00E-01	0.0063	Y	100%	1%
Radionuclides	Radium-226[a]	05	135	8.68E+00	1.47E+00	5.00E-01	0.0063	Y	100%	0%
Radionuclides	Radium-226[a]	06	111	3.26E+00	1.10E+00	4.00E-01	0.0063	Y	100%	1%
Radionuclides	Radium-226[a]	07	71	6.00E+00	1.72E+00	5.00E-01	0.0063	Y	100%	1%
Radionuclides	Radium-226[a]	08	65	5.86E+00	1.53E+00	7.71E-01	0.0063	Y	100%	0%
Radionuclides	Radium-226[a]	09	143	8.06E+00	1.59E+00	6.05E-01	0.0063	Y	100%	0%
Radionuclides	Radium-226[a]	10	107	6.28E+00	1.26E+00	4.92E-01	0.0063	Y	100%	2%
Radionuclides	Radium-226[a]	11	77	4.36E+00	1.22E+00	7.00E-01	0.0063	Y	100%	1%
Radionuclides	Radium-226[a]	12	63	4.80E+00	1.60E+00	4.17E-01	0.0063	Y	100%	1%
Radionuclides	Radium-228[a]	01	111	2.01E+00	1.00E+00	1.00E-01	0.0118	Y	100%	5%
Radionuclides	Radium-228[a]	02	74	2.70E+00	9.51E-01	1.00E-01	0.0118	Y	100%	12%
Radionuclides	Radium-228[a]	03	61	3.30E+00	1.02E+00	1.00E-01	0.0118	Y	100%	23%
Radionuclides	Radium-228[a]	04	102	3.20E+00	1.25E+00	3.00E-01	0.0118	Y	100%	3%
Radionuclides	Radium-228[a]	05	135	8.12E+00	1.20E+00	1.00E-01	0.0118	Y	100%	6%
Radionuclides	Radium-228[a]	06	111	3.90E+00	1.22E+00	1.00E-01	0.0118	Y	100%	10%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
Radionuclides	Radium-228[a]	07	71	2.00E+01	1.90E+00	5.00E-01	0.0118	Y	100%	5%
Radionuclides	Radium-228[a]	08	65	1.01E+01	1.63E+00	4.66E-01	0.0118	Y	100%	5%
Radionuclides	Radium-228[a]	09	143	2.44E+01	2.42E+00	5.00E-01	0.0118	Y	100%	8%
Radionuclides	Radium-228[a]	10	107	6.14E+00	1.57E+00	2.93E-01	0.0118	Y	100%	12%
Radionuclides	Radium-228[a]	11	77	4.33E+00	1.35E+00	1.00E-01	0.0118	Y	100%	5%
Radionuclides	Radium-228[a]	12	63	2.50E+00	1.34E+00	4.80E-01	0.0118	Y	100%	11%
Radionuclides	Thorium	01	111	3.86E+01	7.22E+00	3.44E+00	0.423	Y	100%	0%
Radionuclides	Thorium	02	74	7.39E+01	8.53E+00	3.65E+00	0.423	Y	100%	0%
Radionuclides	Thorium	03	61	1.43E+01	6.58E+00	3.84E+00	0.423	Y	100%	0%
Radionuclides	Thorium	04	102	3.91E+01	8.14E+00	3.84E+00	0.423	Y	100%	0%
Radionuclides	Thorium	05	135	5.98E+01	7.31E+00	2.90E+00	0.423	Y	100%	0%
Radionuclides	Thorium	06	111	6.53E+01	7.82E+00	3.86E+00	0.423	Y	100%	0%
Radionuclides	Thorium	07	71	1.72E+02	1.16E+01	3.00E+00	0.423	Y	100%	0%
Radionuclides	Thorium	08	65	2.35E+02	2.19E+01	2.95E+00	0.423	Y	100%	0%
Radionuclides	Thorium	09	143	2.41E+02	1.65E+01	2.50E-01	0.423	Y	100%	1%
Radionuclides	Thorium	10	107	4.29E+01	9.62E+00	1.38E+00	0.423	Y	100%	0%
Radionuclides	Thorium	11	77	4.16E+01	8.86E+00	2.50E-01	0.423	Y	100%	1%
Radionuclides	Thorium	12	63	1.27E+01	6.66E+00	2.40E+00	0.423	Y	100%	0%
Radionuclides	Uranium	01	111	1.30E+01	1.49E+00	5.99E-01	0.143	Y	100%	0%
Radionuclides	Uranium	02	74	2.57E+01	2.25E+00	7.24E-01	0.143	Y	100%	0%
Radionuclides	Uranium	03	61	6.03E+00	1.88E+00	6.38E-01	0.143	Y	100%	0%
Radionuclides	Uranium	04	102	1.10E+01	1.96E+00	7.14E-01	0.143	Y	100%	0%
Radionuclides	Uranium	05	135	1.30E+02	3.42E+00	5.00E-01	0.143	Y	100%	0%
Radionuclides	Uranium	06	111	1.45E+01	1.64E+00	6.54E-01	0.143	Y	100%	0%
Radionuclides	Uranium	07	71	3.29E+01	4.56E+00	2.50E-01	0.143	Y	100%	1%
Radionuclides	Uranium	08	65	1.50E+02	1.01E+01	7.32E-01	0.143	Y	100%	0%
Radionuclides	Uranium	09	143	5.38E+01	6.98E+00	2.50E-01	0.143	Y	100%	1%
Radionuclides	Uranium	10	107	2.52E+01	2.62E+00	1.31E-01	0.143	Y	100%	2%
Radionuclides	Uranium	11	77	4.29E+01	3.13E+00	5.00E-01	0.143	Y	100%	0%
Radionuclides	Uranium	12	63	1.07E+01	2.01E+00	2.50E-01	0.143	Y	100%	1%
SVOC	1,2-Dichlorobenzene	01	283	1.05E+01	1.04E-01	3.60E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	02	316	5.00E+00	1.25E-01	3.45E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	03	88	1.45E-01	4.02E-02	3.40E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	04	88	1.00E+00	1.11E-01	3.65E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	05	118	5.00E-01	5.43E-02	3.20E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	06	145	1.00E+00	4.91E-02	3.65E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	07	60	1.15E-01	3.29E-02	3.60E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	08	155	7.00E-01	5.65E-02	3.50E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	09	200	2.60E+00	4.08E-02	3.55E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	10	215	5.00E-01	4.26E-02	3.55E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	11	279	2.10E+01	1.53E-01	3.20E-05	180	N	0%	100%
SVOC	1,2-Dichlorobenzene	12	114	2.00E-01	1.75E-02	3.35E-05	180	N	0%	100%
SVOC	1,4-Dichlorobenzene	01	400	1.15E+01	1.60E-01	3.55E-05	2.6	Y	4%	100%
SVOC	1,4-Dichlorobenzene	02	367	5.50E+00	1.44E-01	3.40E-05	2.6	Y	4%	100%
SVOC	1,4-Dichlorobenzene	03	101	1.35E-01	4.48E-02	3.35E-05	2.6	N	0%	100%
SVOC	1,4-Dichlorobenzene	04	107	1.40E+00	1.76E-01	3.65E-05	2.6	N	0%	100%
SVOC	1,4-Dichlorobenzene	05	158	1.35E-01	4.83E-02	3.15E-05	2.6	N	0%	100%
SVOC	1,4-Dichlorobenzene	06	186	1.10E+00	5.60E-02	3.60E-05	2.6	N	0%	100%
SVOC	1,4-Dichlorobenzene	07	61	7.00E-02	9.94E-03	3.55E-05	2.6	N	0%	100%
SVOC	1,4-Dichlorobenzene	08	164	6.50E-01	3.55E-02	3.45E-05	2.6	N	0%	100%
SVOC	1,4-Dichlorobenzene	09	246	7.00E-01	3.64E-02	3.50E-05	2.6	N	0%	100%
SVOC	1,4-Dichlorobenzene	10	261	5.50E-01	3.93E-02	3.50E-05	2.6	N	0%	100%
SVOC	1,4-Dichlorobenzene	11	308	2.15E+01	1.45E-01	3.15E-05	2.6	Y	4%	100%
SVOC	1,4-Dichlorobenzene	12	142	3.30E-01	2.39E-02	3.30E-05	2.6	N	0%	100%
SVOC	2,4,5-Trichlorophenol	01	202	7.00E+00	1.77E-01	7.00E-03	630	N	0%	100%
SVOC	2,4,5-Trichlorophenol	02	184	1.50E+00	1.16E-01	7.00E-03	630	N	0%	100%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	2,4,5-Trichlorophenol	03	50	1.00E-01	5.40E-02	7.00E-03	630	N	0%	100%
SVOC	2,4,5-Trichlorophenol	04	58	1.40E+00	1.56E-01	9.00E-03	630	N	0%	100%
SVOC	2,4,5-Trichlorophenol	05	85	9.50E-02	4.56E-02	9.00E-03	630	N	0%	100%
SVOC	2,4,5-Trichlorophenol	06	95	3.45E-01	4.13E-02	9.00E-03	630	N	0%	100%
SVOC	2,4,5-Trichlorophenol	07	31	7.00E-02	1.42E-02	7.00E-03	630	N	0%	100%
SVOC	2,4,5-Trichlorophenol	08	82	4.85E-01	3.96E-02	7.00E-03	630	N	0%	100%
SVOC	2,4,5-Trichlorophenol	09	128	7.00E-01	5.50E-02	7.00E-03	630	N	0%	100%
SVOC	2,4,5-Trichlorophenol	10	130	3.80E-01	5.79E-02	7.00E-03	630	N	0%	100%
SVOC	2,4,5-Trichlorophenol	11	158	2.10E+01	2.34E-01	7.00E-03	630	N	0%	100%
SVOC	2,4,5-Trichlorophenol	12	75	6.50E-01	5.89E-02	7.00E-03	630	N	0%	100%
SVOC	2,4,6-Trichlorophenol	01	202	4.10E+00	1.21E-01	4.80E-03	6.3	N	0%	100%
SVOC	2,4,6-Trichlorophenol	02	184	1.50E+00	9.34E-02	4.70E-03	6.3	N	0%	100%
SVOC	2,4,6-Trichlorophenol	03	50	1.10E-01	4.91E-02	4.70E-03	6.3	N	0%	100%
SVOC	2,4,6-Trichlorophenol	04	58	8.00E-01	1.23E-01	1.10E-02	6.3	N	0%	100%
SVOC	2,4,6-Trichlorophenol	05	85	1.05E-01	3.65E-02	1.10E-02	6.3	N	0%	100%
SVOC	2,4,6-Trichlorophenol	06	95	2.00E-01	3.09E-02	1.10E-02	6.3	N	0%	100%
SVOC	2,4,6-Trichlorophenol	07	31	3.90E-02	1.15E-02	4.70E-03	6.3	N	0%	100%
SVOC	2,4,6-Trichlorophenol	08	82	5.50E-01	3.89E-02	4.70E-03	6.3	N	0%	100%
SVOC	2,4,6-Trichlorophenol	09	128	4.00E-01	3.73E-02	4.70E-03	6.3	N	0%	100%
SVOC	2,4,6-Trichlorophenol	10	130	2.20E-01	4.89E-02	4.70E-03	6.3	N	0%	100%
SVOC	2,4,6-Trichlorophenol	11	158	1.20E+01	1.54E-01	4.70E-03	6.3	Y	2%	100%
SVOC	2,4,6-Trichlorophenol	12	75	3.85E-01	3.54E-02	4.70E-03	6.3	N	0%	100%
SVOC	2,4-Dichlorophenol	01	202	3.65E+00	9.80E-02	7.50E-03	19	N	0%	100%
SVOC	2,4-Dichlorophenol	02	184	1.10E+00	7.35E-02	7.50E-03	19	N	0%	100%
SVOC	2,4-Dichlorophenol	03	50	1.10E-01	4.50E-02	7.50E-03	19	N	0%	100%
SVOC	2,4-Dichlorophenol	04	58	7.00E-01	1.08E-01	9.50E-03	19	N	0%	100%
SVOC	2,4-Dichlorophenol	05	85	1.05E-01	3.14E-02	9.50E-03	19	N	0%	100%
SVOC	2,4-Dichlorophenol	06	95	1.80E-01	2.51E-02	9.50E-03	19	N	0%	100%
SVOC	2,4-Dichlorophenol	07	31	3.50E-02	1.14E-02	7.50E-03	19	N	0%	100%
SVOC	2,4-Dichlorophenol	08	82	5.50E-01	3.51E-02	7.50E-03	19	N	0%	100%
SVOC	2,4-Dichlorophenol	09	128	3.55E-01	3.51E-02	7.50E-03	19	N	0%	100%
SVOC	2,4-Dichlorophenol	10	130	1.95E-01	4.53E-02	7.50E-03	19	N	0%	100%
SVOC	2,4-Dichlorophenol	11	158	1.10E+01	1.39E-01	7.50E-03	19	N	0%	100%
SVOC	2,4-Dichlorophenol	12	75	3.05E-01	3.13E-02	7.50E-03	19	N	0%	100%
SVOC	2,4-Dimethylphenol	01	197	7.00E+00	1.68E-01	1.85E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	02	184	3.85E+00	1.33E-01	1.80E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	03	50	1.60E-01	6.69E-02	1.80E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	04	58	1.40E+00	1.63E-01	2.15E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	05	85	7.50E-01	9.66E-02	2.20E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	06	95	3.45E-01	6.38E-02	2.15E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	07	31	1.80E-01	9.94E-02	1.80E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	08	82	5.50E-01	1.21E-01	1.80E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	09	128	3.95E+00	1.55E-01	1.80E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	10	130	3.80E-01	1.11E-01	1.80E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	11	156	3.20E+01	4.76E-01	1.80E-02	130	N	0%	100%
SVOC	2,4-Dimethylphenol	12	75	5.00E-01	8.31E-02	1.80E-02	130	N	0%	100%
SVOC	2,4-Dinitrophenol	01	201	1.80E+01	3.00E-01	5.00E-03	13	Y	1%	100%
SVOC	2,4-Dinitrophenol	02	183	2.35E+00	1.83E-01	5.00E-03	13	N	0%	100%
SVOC	2,4-Dinitrophenol	03	49	1.80E-01	8.03E-02	5.00E-03	13	N	0%	100%
SVOC	2,4-Dinitrophenol	04	57	3.50E+00	2.90E-01	3.50E-02	13	N	0%	100%
SVOC	2,4-Dinitrophenol	05	84	4.65E-01	1.12E-01	3.60E-02	13	N	0%	100%
SVOC	2,4-Dinitrophenol	06	95	9.00E-01	9.77E-02	3.50E-02	13	N	0%	100%
SVOC	2,4-Dinitrophenol	07	31	1.70E-01	7.05E-02	5.00E-03	13	N	0%	100%
SVOC	2,4-Dinitrophenol	08	82	3.80E-01	9.84E-02	5.00E-03	13	N	0%	100%
SVOC	2,4-Dinitrophenol	09	127	2.40E+00	1.59E-01	5.00E-03	13	N	0%	100%
SVOC	2,4-Dinitrophenol	10	130	9.50E-01	1.20E-01	5.00E-03	13	N	0%	100%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	2,4-Dinitrophenol	11	158	5.50E+01	6.78E-01	5.00E-03	13	Y	4%	100%
SVOC	2,4-Dinitrophenol	12	75	5.50E-01	1.12E-01	5.00E-03	13	N	0%	100%
SVOC	2,4-Dinitrotoluene	01	203	4.40E+00	1.13E-01	1.00E-02	1.7	Y	3%	100%
SVOC	2,4-Dinitrotoluene	02	184	9.50E-01	7.58E-02	1.00E-02	1.7	N	0%	100%
SVOC	2,4-Dinitrotoluene	03	50	1.15E-01	4.78E-02	1.00E-02	1.7	N	0%	100%
SVOC	2,4-Dinitrotoluene	04	59	8.50E-01	1.19E-01	1.25E-02	1.7	N	0%	100%
SVOC	2,4-Dinitrotoluene	05	85	1.10E-01	3.46E-02	1.25E-02	1.7	N	0%	100%
SVOC	2,4-Dinitrotoluene	06	96	2.15E-01	3.08E-02	1.25E-02	1.7	N	0%	100%
SVOC	2,4-Dinitrotoluene	07	31	4.20E-02	1.47E-02	1.00E-02	1.7	N	0%	100%
SVOC	2,4-Dinitrotoluene	08	82	5.50E-01	3.76E-02	1.00E-02	1.7	N	0%	100%
SVOC	2,4-Dinitrotoluene	09	128	4.25E-01	4.26E-02	1.00E-02	1.7	N	0%	100%
SVOC	2,4-Dinitrotoluene	10	131	2.35E-01	5.04E-02	1.00E-02	1.7	N	0%	100%
SVOC	2,4-Dinitrotoluene	11	160	1.30E+01	1.67E-01	1.00E-02	1.7	Y	6%	100%
SVOC	2,4-Dinitrotoluene	12	75	4.10E-01	3.97E-02	1.00E-02	1.7	N	0%	100%
SVOC	2,6-Dinitrotoluene	01	203	5.00E+00	1.42E-01	7.00E-03	0.36	Y	14%	100%
SVOC	2,6-Dinitrotoluene	02	184	1.40E+00	1.07E-01	6.50E-03	0.36	Y	11%	100%
SVOC	2,6-Dinitrotoluene	03	50	1.15E-01	5.59E-02	6.50E-03	0.36	N	0%	100%
SVOC	2,6-Dinitrotoluene	04	59	1.00E+00	1.42E-01	2.65E-02	0.36	Y	12%	100%
SVOC	2,6-Dinitrotoluene	05	85	2.40E-01	5.39E-02	2.70E-02	0.36	N	0%	100%
SVOC	2,6-Dinitrotoluene	06	96	2.70E-01	4.63E-02	2.65E-02	0.36	N	0%	100%
SVOC	2,6-Dinitrotoluene	07	31	5.50E-02	3.41E-02	6.50E-03	0.36	N	0%	100%
SVOC	2,6-Dinitrotoluene	08	82	5.50E-01	6.12E-02	6.50E-03	0.36	Y	4%	100%
SVOC	2,6-Dinitrotoluene	09	128	1.25E+00	6.92E-02	6.50E-03	0.36	Y	9%	100%
SVOC	2,6-Dinitrotoluene	10	131	2.75E-01	6.80E-02	6.50E-03	0.36	N	0%	100%
SVOC	2,6-Dinitrotoluene	11	160	1.55E+01	2.58E-01	6.50E-03	0.36	Y	10%	100%
SVOC	2,6-Dinitrotoluene	12	75	4.85E-01	5.12E-02	6.50E-03	0.36	Y	3%	100%
SVOC	2-Chloronaphthalene	01	203	3.65E+00	1.07E-01	5.00E-03	480	N	0%	100%
SVOC	2-Chloronaphthalene	02	184	1.30E+00	8.13E-02	4.95E-03	480	N	0%	100%
SVOC	2-Chloronaphthalene	03	50	1.10E-01	4.64E-02	4.95E-03	480	N	0%	100%
SVOC	2-Chloronaphthalene	04	59	7.00E-01	1.15E-01	9.50E-03	480	N	0%	100%
SVOC	2-Chloronaphthalene	05	85	1.05E-01	3.29E-02	9.50E-03	480	N	0%	100%
SVOC	2-Chloronaphthalene	06	96	2.45E-01	3.25E-02	9.50E-03	480	N	0%	100%
SVOC	2-Chloronaphthalene	07	31	3.50E-02	1.05E-02	4.95E-03	480	N	0%	100%
SVOC	2-Chloronaphthalene	08	82	5.50E-01	3.63E-02	4.95E-03	480	N	0%	100%
SVOC	2-Chloronaphthalene	09	128	3.55E-01	3.39E-02	4.95E-03	480	N	0%	100%
SVOC	2-Chloronaphthalene	10	131	1.95E-01	4.63E-02	4.95E-03	480	N	0%	100%
SVOC	2-Chloronaphthalene	11	160	1.10E+01	1.42E-01	4.95E-03	480	N	0%	100%
SVOC	2-Chloronaphthalene	12	75	3.30E-01	3.13E-02	4.95E-03	480	N	0%	100%
SVOC	2-Chlorophenol	01	202	4.15E+00	1.32E-01	8.00E-03	39	N	0%	100%
SVOC	2-Chlorophenol	02	184	2.05E+00	1.14E-01	8.00E-03	39	N	0%	100%
SVOC	2-Chlorophenol	03	50	1.25E-01	5.67E-02	8.00E-03	39	N	0%	100%
SVOC	2-Chlorophenol	04	58	7.50E-01	1.39E-01	1.50E-02	39	N	0%	100%
SVOC	2-Chlorophenol	05	85	1.25E-01	4.22E-02	1.50E-02	39	N	0%	100%
SVOC	2-Chlorophenol	06	95	1.85E-01	3.60E-02	1.50E-02	39	N	0%	100%
SVOC	2-Chlorophenol	07	31	3.65E-02	1.48E-02	8.00E-03	39	N	0%	100%
SVOC	2-Chlorophenol	08	82	6.00E-01	4.66E-02	8.00E-03	39	N	0%	100%
SVOC	2-Chlorophenol	09	128	3.90E-01	4.03E-02	8.00E-03	39	N	0%	100%
SVOC	2-Chlorophenol	10	130	2.05E-01	5.48E-02	8.00E-03	39	N	0%	100%
SVOC	2-Chlorophenol	11	158	1.15E+01	1.61E-01	8.00E-03	39	N	0%	100%
SVOC	2-Chlorophenol	12	75	3.60E-01	3.54E-02	8.00E-03	39	N	0%	100%
SVOC	2-Methylnaphthalene	01	203	3.60E+01	1.29E+00	5.00E-03	24	Y	4%	91%
SVOC	2-Methylnaphthalene	02	184	5.50E+00	1.35E-01	5.00E-03	24	N	0%	98%
SVOC	2-Methylnaphthalene	03	50	1.25E-01	4.99E-02	5.00E-03	24	N	0%	100%
SVOC	2-Methylnaphthalene	04	59	7.50E-01	1.16E-01	1.70E-02	24	N	0%	100%
SVOC	2-Methylnaphthalene	05	85	1.30E-01	3.81E-02	1.75E-02	24	N	0%	100%
SVOC	2-Methylnaphthalene	06	96	1.85E-01	3.10E-02	1.70E-02	24	N	0%	98%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	2-Methylnaphthalene	07	31	3.65E-02	1.99E-02	5.00E-03	24	N	0%	100%
SVOC	2-Methylnaphthalene	08	82	6.00E-01	4.58E-02	5.00E-03	24	N	0%	100%
SVOC	2-Methylnaphthalene	09	128	6.50E-01	4.56E-02	5.00E-03	24	N	0%	100%
SVOC	2-Methylnaphthalene	10	131	2.05E-01	5.52E-02	5.00E-03	24	N	0%	100%
SVOC	2-Methylnaphthalene	11	160	1.15E+01	2.16E-01	5.00E-03	24	N	0%	96%
SVOC	2-Methylnaphthalene	12	75	3.60E-01	3.63E-02	5.00E-03	24	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	01	202	4.40E+00	1.26E-01	8.00E-03	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	02	184	1.40E+00	9.66E-02	8.00E-03	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	03	50	1.15E-01	5.22E-02	8.00E-03	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	04	58	8.50E-01	1.28E-01	2.65E-02	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	05	85	1.40E-01	4.34E-02	2.70E-02	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	06	95	2.15E-01	3.41E-02	2.70E-02	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	07	31	4.20E-02	2.24E-02	8.00E-03	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	08	82	5.50E-01	4.87E-02	8.00E-03	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	09	128	7.00E-01	5.13E-02	8.00E-03	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	10	130	2.35E-01	5.71E-02	8.00E-03	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	11	158	1.30E+01	1.90E-01	8.00E-03	320	N	0%	100%
SVOC	2-Methylphenol (o-cresol)	12	75	4.10E-01	4.17E-02	8.00E-03	320	N	0%	100%
SVOC	2-Nitroaniline	01	203	3.65E+00	1.13E-01	7.50E-03	63	N	0%	100%
SVOC	2-Nitroaniline	02	184	1.50E+00	8.98E-02	8.50E-03	63	N	0%	100%
SVOC	2-Nitroaniline	03	50	1.20E-01	5.07E-02	8.00E-03	63	N	0%	100%
SVOC	2-Nitroaniline	04	59	7.00E-01	1.23E-01	7.50E-03	63	N	0%	100%
SVOC	2-Nitroaniline	05	85	1.15E-01	3.45E-02	7.50E-03	63	N	0%	100%
SVOC	2-Nitroaniline	06	96	2.90E-01	3.55E-02	7.50E-03	63	N	0%	100%
SVOC	2-Nitroaniline	07	31	3.50E-02	1.07E-02	7.50E-03	63	N	0%	100%
SVOC	2-Nitroaniline	08	82	6.00E-01	3.85E-02	7.50E-03	63	N	0%	100%
SVOC	2-Nitroaniline	09	128	3.55E-01	3.46E-02	7.50E-03	63	N	0%	100%
SVOC	2-Nitroaniline	10	131	1.95E-01	4.87E-02	7.50E-03	63	N	0%	100%
SVOC	2-Nitroaniline	11	160	1.10E+01	1.42E-01	7.50E-03	63	N	0%	100%
SVOC	2-Nitroaniline	12	75	3.05E-01	3.13E-02	8.00E-03	63	N	0%	100%
SVOC	3,3'-Dichlorobenzidine	01	201	2.75E+01	5.71E-01	2.25E-02	1.2	Y	8%	100%
SVOC	3,3'-Dichlorobenzidine	02	182	1.35E+01	6.10E-01	2.20E-02	1.2	Y	13%	100%
SVOC	3,3'-Dichlorobenzidine	03	50	2.65E-01	1.46E-01	2.20E-02	1.2	N	0%	100%
SVOC	3,3'-Dichlorobenzidine	04	58	2.55E+00	4.49E-01	6.50E-02	1.2	Y	20%	100%
SVOC	3,3'-Dichlorobenzidine	05	85	3.40E-01	1.59E-01	6.50E-02	1.2	N	0%	100%
SVOC	3,3'-Dichlorobenzidine	06	96	2.60E+00	2.35E-01	6.50E-02	1.2	Y	3%	100%
SVOC	3,3'-Dichlorobenzidine	07	31	8.00E-02	5.42E-02	2.20E-02	1.2	N	0%	100%
SVOC	3,3'-Dichlorobenzidine	08	81	1.30E+00	1.46E-01	2.20E-02	1.2	Y	4%	100%
SVOC	3,3'-Dichlorobenzidine	09	126	1.75E+00	1.07E-01	2.20E-02	1.2	Y	6%	100%
SVOC	3,3'-Dichlorobenzidine	10	131	1.30E+00	1.26E-01	2.20E-02	1.2	Y	3%	100%
SVOC	3,3'-Dichlorobenzidine	11	158	2.40E+01	4.62E-01	2.20E-02	1.2	Y	12%	100%
SVOC	3,3'-Dichlorobenzidine	12	75	7.50E-01	8.36E-02	2.20E-02	1.2	N	0%	100%
SVOC	4,6-Dinitro-2-methylphenol	01	201	7.50E+00	1.60E-01	9.00E-03	0.51	Y	15%	100%
SVOC	4,6-Dinitro-2-methylphenol	02	184	1.10E+00	1.03E-01	8.50E-03	0.51	Y	9%	100%
SVOC	4,6-Dinitro-2-methylphenol	03	50	9.50E-02	5.19E-02	8.50E-03	0.51	N	0%	100%
SVOC	4,6-Dinitro-2-methylphenol	04	58	1.40E+00	1.48E-01	2.10E-02	0.51	Y	4%	100%
SVOC	4,6-Dinitro-2-methylphenol	05	84	1.55E-01	5.05E-02	2.15E-02	0.51	N	0%	100%
SVOC	4,6-Dinitro-2-methylphenol	06	95	3.55E-01	4.18E-02	2.10E-02	0.51	N	0%	100%
SVOC	4,6-Dinitro-2-methylphenol	07	31	7.00E-02	2.72E-02	8.50E-03	0.51	N	0%	100%
SVOC	4,6-Dinitro-2-methylphenol	08	82	4.60E-01	4.89E-02	8.50E-03	0.51	N	0%	100%
SVOC	4,6-Dinitro-2-methylphenol	09	127	8.00E-01	6.58E-02	8.50E-03	0.51	Y	6%	100%
SVOC	4,6-Dinitro-2-methylphenol	10	130	3.90E-01	6.31E-02	8.50E-03	0.51	N	0%	100%
SVOC	4,6-Dinitro-2-methylphenol	11	158	2.15E+01	2.71E-01	8.50E-03	0.51	Y	8%	100%
SVOC	4,6-Dinitro-2-methylphenol	12	75	5.50E-01	6.02E-02	8.50E-03	0.51	Y	3%	100%
SVOC	4-Chloro-3-methylphenol	01	202	3.85E+00	1.02E-01	5.50E-03	630	N	0%	100%
SVOC	4-Chloro-3-methylphenol	02	184	1.00E+00	7.18E-02	5.50E-03	630	N	0%	100%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	4-Chloro-3-methylphenol	03	50	1.15E-01	4.64E-02	5.50E-03	630	N	0%	100%
SVOC	4-Chloro-3-methylphenol	04	58	7.50E-01	1.11E-01	9.50E-03	630	N	0%	100%
SVOC	4-Chloro-3-methylphenol	05	85	1.10E-01	3.20E-02	9.50E-03	630	N	0%	100%
SVOC	4-Chloro-3-methylphenol	06	95	1.85E-01	2.50E-02	9.50E-03	630	N	0%	100%
SVOC	4-Chloro-3-methylphenol	07	31	3.65E-02	1.09E-02	5.50E-03	630	N	0%	100%
SVOC	4-Chloro-3-methylphenol	08	82	5.50E-01	3.55E-02	5.50E-03	630	N	0%	100%
SVOC	4-Chloro-3-methylphenol	09	128	3.70E-01	3.53E-02	5.50E-03	630	N	0%	100%
SVOC	4-Chloro-3-methylphenol	10	130	2.05E-01	4.71E-02	5.50E-03	630	N	0%	100%
SVOC	4-Chloro-3-methylphenol	11	158	1.15E+01	1.44E-01	5.50E-03	630	N	0%	100%
SVOC	4-Chloro-3-methylphenol	12	75	3.60E-01	3.35E-02	5.50E-03	630	N	0%	100%
SVOC	4-Chloroaniline	01	203	1.65E+01	3.86E-01	2.20E-02	2.7	Y	4%	100%
SVOC	4-Chloroaniline	02	184	8.00E+00	3.81E-01	2.90E-02	2.7	Y	5%	100%
SVOC	4-Chloroaniline	03	50	1.60E-01	9.64E-02	2.30E-02	2.7	N	0%	100%
SVOC	4-Chloroaniline	04	58	1.55E+00	3.04E-01	2.20E-02	2.7	N	0%	100%
SVOC	4-Chloroaniline	05	85	1.75E-01	9.78E-02	2.20E-02	2.7	N	0%	100%
SVOC	4-Chloroaniline	06	96	1.55E+00	1.45E-01	2.20E-02	2.7	N	0%	100%
SVOC	4-Chloroaniline	07	31	7.00E-02	2.97E-02	2.25E-02	2.7	N	0%	100%
SVOC	4-Chloroaniline	08	82	8.00E-01	8.69E-02	2.20E-02	2.7	N	0%	100%
SVOC	4-Chloroaniline	09	128	7.00E-01	7.49E-02	2.20E-02	2.7	N	0%	100%
SVOC	4-Chloroaniline	10	130	8.00E-01	8.18E-02	2.15E-02	2.7	N	0%	100%
SVOC	4-Chloroaniline	11	160	2.15E+01	3.09E-01	2.20E-02	2.7	Y	6%	100%
SVOC	4-Chloroaniline	12	75	6.00E-01	6.81E-02	2.25E-02	2.7	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	01	202	7.50E+00	1.48E-01	6.00E-03	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	02	184	1.10E+00	9.48E-02	5.50E-03	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	03	50	1.15E-01	5.54E-02	5.50E-03	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	04	58	1.40E+00	1.55E-01	2.05E-02	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	05	85	1.10E-01	4.85E-02	2.10E-02	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	06	95	3.55E-01	4.00E-02	2.10E-02	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	07	31	7.00E-02	2.09E-02	5.50E-03	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	08	82	5.50E-01	4.69E-02	5.50E-03	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	09	128	7.00E-01	6.39E-02	5.50E-03	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	10	130	3.90E-01	6.34E-02	5.50E-03	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	11	158	2.15E+01	2.59E-01	5.50E-03	630	N	0%	100%
SVOC	4-Methylphenol (p-cresol)	12	75	4.10E-01	5.14E-02	5.50E-03	630	N	0%	100%
SVOC	4-Nitroaniline	01	203	7.50E+00	1.73E-01	1.15E-02	25	N	0%	100%
SVOC	4-Nitroaniline	02	184	1.70E+00	1.26E-01	1.10E-02	25	N	0%	100%
SVOC	4-Nitroaniline	03	50	9.50E-02	5.62E-02	1.10E-02	25	N	0%	100%
SVOC	4-Nitroaniline	04	59	1.40E+00	1.66E-01	3.15E-02	25	N	0%	100%
SVOC	4-Nitroaniline	05	85	2.00E-01	5.80E-02	3.25E-02	25	N	0%	100%
SVOC	4-Nitroaniline	06	96	3.55E-01	5.60E-02	3.20E-02	25	N	0%	100%
SVOC	4-Nitroaniline	07	31	7.00E-02	3.29E-02	1.10E-02	25	N	0%	100%
SVOC	4-Nitroaniline	08	82	4.60E-01	5.74E-02	1.10E-02	25	N	0%	100%
SVOC	4-Nitroaniline	09	128	1.00E+00	7.76E-02	1.10E-02	25	N	0%	100%
SVOC	4-Nitroaniline	10	131	3.90E-01	6.79E-02	1.10E-02	25	N	0%	100%
SVOC	4-Nitroaniline	11	160	2.15E+01	3.00E-01	1.10E-02	25	N	0%	100%
SVOC	4-Nitroaniline	12	75	4.60E-01	5.88E-02	1.10E-02	25	N	0%	100%
SVOC	Acenaphthene	01	200	2.20E+00	5.55E-02	1.00E-03	360	N	0%	99%
SVOC	Acenaphthene	02	184	1.10E+00	5.02E-02	2.00E-03	360	N	0%	100%
SVOC	Acenaphthene	03	51	1.10E-01	3.81E-02	2.05E-03	360	N	0%	96%
SVOC	Acenaphthene	04	59	5.00E-01	6.72E-02	2.05E-03	360	N	0%	99%
SVOC	Acenaphthene	05	85	1.05E-01	2.13E-02	2.05E-03	360	N	0%	99%
SVOC	Acenaphthene	06	93	2.05E-01	2.17E-02	2.05E-03	360	N	0%	97%
SVOC	Acenaphthene	07	31	4.20E-02	1.19E-02	4.35E-03	360	N	0%	100%
SVOC	Acenaphthene	08	82	5.50E-01	3.20E-02	2.05E-03	360	N	0%	100%
SVOC	Acenaphthene	09	128	2.95E-01	1.74E-02	2.05E-03	360	N	0%	99%
SVOC	Acenaphthene	10	131	1.60E-01	3.30E-02	2.05E-03	360	N	0%	99%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	Acenaphthene	11	160	2.40E+00	5.12E-02	2.00E-03	360	N	0%	98%
SVOC	Acenaphthene	12	72	2.30E-02	5.12E-03	2.00E-03	360	N	0%	100%
SVOC	Acenaphthylene	01	200	2.15E+00	4.68E-02	1.00E-03	360	N	0%	99%
SVOC	Acenaphthylene	02	184	1.05E+00	5.13E-02	2.00E-03	360	N	0%	99%
SVOC	Acenaphthylene	03	51	1.20E-01	4.19E-02	2.05E-03	360	N	0%	96%
SVOC	Acenaphthylene	04	59	5.50E-01	7.14E-02	2.05E-03	360	N	0%	98%
SVOC	Acenaphthylene	05	85	1.15E-01	2.60E-02	2.05E-03	360	N	0%	99%
SVOC	Acenaphthylene	06	93	2.05E-01	2.05E-02	2.05E-03	360	N	0%	100%
SVOC	Acenaphthylene	07	31	4.20E-02	1.75E-02	3.80E-03	360	N	0%	100%
SVOC	Acenaphthylene	08	82	6.00E-01	3.96E-02	2.05E-03	360	N	0%	100%
SVOC	Acenaphthylene	09	128	5.50E-01	2.47E-02	2.05E-03	360	N	0%	95%
SVOC	Acenaphthylene	10	131	1.75E-01	3.90E-02	2.05E-03	360	N	0%	99%
SVOC	Acenaphthylene	11	160	4.55E+00	6.90E-02	2.00E-03	360	N	0%	100%
SVOC	Acenaphthylene	12	72	4.35E-02	6.99E-03	2.00E-03	360	N	0%	100%
SVOC	Anthracene	01	200	1.70E+00	4.29E-02	1.00E-03	1800	N	0%	100%
SVOC	Anthracene	02	184	1.50E+00	5.21E-02	2.00E-03	1800	N	0%	100%
SVOC	Anthracene	03	51	9.50E-02	3.71E-02	2.00E-03	1800	N	0%	100%
SVOC	Anthracene	04	59	4.45E-01	6.02E-02	2.05E-03	1800	N	0%	99%
SVOC	Anthracene	05	85	2.95E-01	3.67E-02	2.05E-03	1800	N	0%	100%
SVOC	Anthracene	06	93	1.60E-01	2.39E-02	2.05E-03	1800	N	0%	100%
SVOC	Anthracene	07	31	7.00E-02	4.03E-02	7.00E-03	1800	N	0%	100%
SVOC	Anthracene	08	82	4.60E-01	5.49E-02	2.05E-03	1800	N	0%	100%
SVOC	Anthracene	09	128	1.55E+00	4.97E-02	2.05E-03	1800	N	0%	100%
SVOC	Anthracene	10	131	1.35E-01	4.62E-02	2.05E-03	1800	N	0%	100%
SVOC	Anthracene	11	160	1.25E+01	1.35E-01	2.00E-03	1800	N	0%	100%
SVOC	Anthracene	12	72	1.20E-01	1.60E-02	2.00E-03	1800	N	0%	100%
SVOC	Benzo(a)anthracene	01	200	9.50E-01	2.69E-02	1.00E-03	0.16	Y	4%	100%
SVOC	Benzo(a)anthracene	02	184	4.65E-01	2.56E-02	2.00E-03	0.16	Y	6%	98%
SVOC	Benzo(a)anthracene	03	51	8.00E-02	2.73E-02	2.00E-03	0.16	N	0%	100%
SVOC	Benzo(a)anthracene	04	59	1.80E+00	1.22E-01	2.05E-03	0.16	Y	12%	86%
SVOC	Benzo(a)anthracene	05	85	1.20E-01	1.85E-02	2.05E-03	0.16	N	0%	95%
SVOC	Benzo(a)anthracene	06	93	2.90E-01	1.45E-02	2.05E-03	0.16	Y	3%	96%
SVOC	Benzo(a)anthracene	07	31	4.20E-02	1.17E-02	3.80E-03	0.16	N	0%	100%
SVOC	Benzo(a)anthracene	08	82	4.05E-01	2.34E-02	2.05E-03	0.16	Y	4%	100%
SVOC	Benzo(a)anthracene	09	128	2.95E-01	1.77E-02	2.05E-03	0.16	Y	12%	98%
SVOC	Benzo(a)anthracene	10	131	1.20E-01	2.53E-02	2.05E-03	0.16	N	0%	99%
SVOC	Benzo(a)anthracene	11	160	2.40E+00	4.42E-02	2.00E-03	0.16	Y	12%	96%
SVOC	Benzo(a)anthracene	12	72	2.30E-02	4.87E-03	2.00E-03	0.16	N	0%	100%
SVOC	Benzo(a)pyrene	01	200	1.70E+00	4.21E-02	1.00E-03	0.016	Y	43%	100%
SVOC	Benzo(a)pyrene	02	184	1.30E+00	5.01E-02	2.00E-03	0.016	Y	42%	100%
SVOC	Benzo(a)pyrene	03	51	1.10E-01	4.00E-02	2.00E-03	0.016	Y	74%	100%
SVOC	Benzo(a)pyrene	04	59	1.70E+00	1.35E-01	2.05E-03	0.016	Y	88%	90%
SVOC	Benzo(a)pyrene	05	85	2.65E-01	3.75E-02	2.05E-03	0.016	Y	69%	97%
SVOC	Benzo(a)pyrene	06	93	2.70E-01	2.68E-02	2.05E-03	0.016	Y	74%	96%
SVOC	Benzo(a)pyrene	07	31	6.00E-02	3.59E-02	5.00E-03	0.016	Y	64%	100%
SVOC	Benzo(a)pyrene	08	82	5.50E-01	5.40E-02	2.05E-03	0.016	Y	84%	100%
SVOC	Benzo(a)pyrene	09	128	1.35E+00	4.60E-02	2.05E-03	0.016	Y	42%	98%
SVOC	Benzo(a)pyrene	10	131	1.60E-01	4.75E-02	2.05E-03	0.016	Y	67%	99%
SVOC	Benzo(a)pyrene	11	160	1.10E+01	1.24E-01	2.00E-03	0.016	Y	74%	100%
SVOC	Benzo(a)pyrene	12	72	1.05E-01	1.39E-02	2.00E-03	0.016	Y	17%	100%
SVOC	Benzo(b)fluoranthene	01	200	1.75E+00	6.72E-02	1.00E-03	0.16	Y	8%	99%
SVOC	Benzo(b)fluoranthene	02	184	1.60E+00	9.39E-02	2.00E-03	0.16	Y	9%	100%
SVOC	Benzo(b)fluoranthene	03	51	1.25E-01	4.35E-02	2.00E-03	0.16	N	0%	100%
SVOC	Benzo(b)fluoranthene	04	59	3.10E+00	1.98E-01	2.05E-03	0.16	Y	16%	90%
SVOC	Benzo(b)fluoranthene	05	85	3.20E-01	4.29E-02	2.05E-03	0.16	Y	5%	93%
SVOC	Benzo(b)fluoranthene	06	93	3.80E-01	3.72E-02	2.05E-03	0.16	Y	8%	96%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	Benzo(b)fluoranthene	07	31	1.25E-01	8.55E-02	4.20E-02	0.16	N	0%	100%
SVOC	Benzo(b)fluoranthene	08	82	4.85E-01	6.36E-02	2.05E-03	0.16	Y	4%	96%
SVOC	Benzo(b)fluoranthene	09	128	1.65E+00	1.09E-01	2.05E-03	0.16	Y	21%	98%
SVOC	Benzo(b)fluoranthene	10	131	1.45E-01	5.26E-02	2.05E-03	0.16	N	0%	99%
SVOC	Benzo(b)fluoranthene	11	160	1.35E+01	1.77E-01	2.00E-03	0.16	Y	16%	97%
SVOC	Benzo(b)fluoranthene	12	72	1.30E-01	6.40E-02	2.00E-03	0.16	N	0%	100%
SVOC	Benzo(k)fluoranthene	01	200	2.30E+00	7.35E-02	1.00E-03	1.6	Y	1%	100%
SVOC	Benzo(k)fluoranthene	02	184	1.10E+00	9.54E-02	2.00E-03	1.6	N	0%	100%
SVOC	Benzo(k)fluoranthene	03	51	1.25E-01	4.26E-02	2.00E-03	1.6	N	0%	100%
SVOC	Benzo(k)fluoranthene	04	59	1.20E+00	1.11E-01	2.05E-03	1.6	N	0%	90%
SVOC	Benzo(k)fluoranthene	05	85	1.40E-01	2.86E-02	2.05E-03	1.6	N	0%	97%
SVOC	Benzo(k)fluoranthene	06	93	2.15E-01	2.70E-02	2.05E-03	1.6	N	0%	96%
SVOC	Benzo(k)fluoranthene	07	31	1.25E-01	6.52E-02	2.80E-02	1.6	N	0%	100%
SVOC	Benzo(k)fluoranthene	08	82	4.85E-01	4.45E-02	2.05E-03	1.6	N	0%	100%
SVOC	Benzo(k)fluoranthene	09	128	7.00E-01	8.53E-02	2.05E-03	1.6	N	0%	99%
SVOC	Benzo(k)fluoranthene	10	131	1.45E-01	4.01E-02	2.05E-03	1.6	N	0%	99%
SVOC	Benzo(k)fluoranthene	11	160	6.00E+00	1.08E-01	2.00E-03	1.6	Y	2%	100%
SVOC	Benzo(k)fluoranthene	12	72	1.25E-01	5.67E-02	2.00E-03	1.6	N	0%	100%
SVOC	Benzoic acid	01	200	2.75E+01	5.42E-01	1.35E-03	25000	N	0%	100%
SVOC	Benzoic acid	02	183	1.35E+01	6.09E-01	1.35E-03	25000	N	0%	100%
SVOC	Benzoic acid	03	50	2.65E-01	1.60E-01	1.35E-03	25000	N	0%	91%
SVOC	Benzoic acid	04	57	2.55E+00	4.51E-01	7.50E-02	25000	N	0%	97%
SVOC	Benzoic acid	05	84	6.00E-01	1.82E-01	7.50E-02	25000	N	0%	99%
SVOC	Benzoic acid	06	95	4.00E-01	1.84E-01	7.50E-02	25000	N	0%	100%
SVOC	Benzoic acid	07	31	1.45E-01	7.72E-02	1.35E-03	25000	N	0%	100%
SVOC	Benzoic acid	08	82	1.30E+00	1.84E-01	1.35E-03	25000	N	0%	98%
SVOC	Benzoic acid	09	128	3.15E+00	1.34E-01	1.35E-03	25000	N	0%	99%
SVOC	Benzoic acid	10	129	1.30E+00	1.45E-01	1.35E-03	25000	N	0%	98%
SVOC	Benzoic acid	11	158	2.55E+01	5.15E-01	1.35E-03	25000	N	0%	99%
SVOC	Benzoic acid	12	75	7.50E-01	8.61E-02	1.35E-03	25000	N	0%	100%
SVOC	Benzyl alcohol	01	84	3.75E+00	1.25E-01	5.50E-03	630	N	0%	100%
SVOC	Benzyl alcohol	02	127	1.85E+00	1.09E-01	5.50E-03	630	N	0%	100%
SVOC	Benzyl alcohol	03	37	1.30E-01	6.28E-02	5.50E-03	630	N	0%	100%
SVOC	Benzyl alcohol	04	39	3.50E-01	1.18E-01	8.50E-03	630	N	0%	100%
SVOC	Benzyl alcohol	05	45	1.30E-01	3.98E-02	8.50E-03	630	N	0%	100%
SVOC	Benzyl alcohol	06	54	3.70E-02	2.87E-02	8.50E-03	630	N	0%	100%
SVOC	Benzyl alcohol	07	30	1.00E-02	7.63E-03	5.50E-03	630	N	0%	100%
SVOC	Benzyl alcohol	08	73	6.50E-01	4.39E-02	5.50E-03	630	N	0%	100%
SVOC	Benzyl alcohol	09	82	2.25E-01	1.91E-02	5.50E-03	630	N	0%	100%
SVOC	Benzyl alcohol	10	85	1.90E-01	5.76E-02	5.50E-03	630	N	0%	100%
SVOC	Benzyl alcohol	11	123	1.80E+00	5.46E-02	5.50E-03	630	N	0%	100%
SVOC	Benzyl alcohol	12	47	1.75E-02	7.01E-03	5.50E-03	630	N	0%	100%
SVOC	Benzyl butyl phthalate	01	203	4.40E+00	1.09E-01	6.00E-03	290	N	0%	99%
SVOC	Benzyl butyl phthalate	02	184	3.60E+00	1.17E-01	5.50E-03	290	N	0%	94%
SVOC	Benzyl butyl phthalate	03	50	9.50E-02	4.21E-02	5.50E-03	290	N	0%	100%
SVOC	Benzyl butyl phthalate	04	59	8.50E-01	1.07E-01	1.40E-02	290	N	0%	100%
SVOC	Benzyl butyl phthalate	05	85	1.25E-01	3.62E-02	1.45E-02	290	N	0%	100%
SVOC	Benzyl butyl phthalate	06	96	2.15E-01	2.99E-02	1.40E-02	290	N	0%	100%
SVOC	Benzyl butyl phthalate	07	31	4.20E-02	2.00E-02	5.50E-03	290	N	0%	100%
SVOC	Benzyl butyl phthalate	08	82	4.60E-01	3.94E-02	5.50E-03	290	N	0%	100%
SVOC	Benzyl butyl phthalate	09	128	6.50E-01	4.79E-02	5.50E-03	290	N	0%	100%
SVOC	Benzyl butyl phthalate	10	131	2.35E-01	4.94E-02	5.50E-03	290	N	0%	100%
SVOC	Benzyl butyl phthalate	11	160	1.30E+01	1.84E-01	5.50E-03	290	N	0%	100%
SVOC	Benzyl butyl phthalate	12	75	4.10E-01	4.03E-02	5.50E-03	290	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	01	203	7.50E+00	1.61E-01	4.65E-03	19	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	02	184	1.60E+00	1.20E-01	4.55E-03	19	N	0%	100%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	bis(2-Chloroethoxy)methane	03	50	1.15E-01	6.16E-02	4.55E-03	19	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	04	59	1.40E+00	1.73E-01	2.95E-02	19	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	05	85	2.85E-01	6.47E-02	3.05E-02	19	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	06	96	3.55E-01	5.75E-02	3.00E-02	19	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	07	31	7.00E-02	4.06E-02	4.55E-03	19	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	08	82	5.50E-01	6.96E-02	4.55E-03	19	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	09	128	1.45E+00	8.63E-02	4.55E-03	19	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	10	131	3.90E-01	7.77E-02	4.55E-03	19	N	0%	100%
SVOC	bis(2-Chloroethoxy)methane	11	160	2.15E+01	3.32E-01	4.55E-03	19	Y	2%	100%
SVOC	bis(2-Chloroethoxy)methane	12	75	3.60E-01	5.57E-02	4.55E-03	19	N	0%	100%
SVOC	bis(2-Chloroethyl)ether	01	203	8.00E+00	1.85E-01	8.00E-03	0.23	Y	17%	100%
SVOC	bis(2-Chloroethyl)ether	02	184	4.00E+00	1.88E-01	7.50E-03	0.23	Y	16%	100%
SVOC	bis(2-Chloroethyl)ether	03	50	8.00E-02	4.94E-02	7.50E-03	0.23	N	0%	100%
SVOC	bis(2-Chloroethyl)ether	04	59	7.50E-01	1.52E-01	2.20E-02	0.23	Y	28%	100%
SVOC	bis(2-Chloroethyl)ether	05	85	1.10E-01	5.19E-02	2.20E-02	0.23	N	0%	100%
SVOC	bis(2-Chloroethyl)ether	06	96	7.50E-01	7.20E-02	2.20E-02	0.23	Y	3%	100%
SVOC	bis(2-Chloroethyl)ether	07	31	3.15E-02	1.83E-02	7.50E-03	0.23	N	0%	100%
SVOC	bis(2-Chloroethyl)ether	08	82	3.85E-01	4.98E-02	7.50E-03	0.23	Y	8%	100%
SVOC	bis(2-Chloroethyl)ether	09	128	6.00E-01	3.96E-02	7.50E-03	0.23	Y	9%	100%
SVOC	bis(2-Chloroethyl)ether	10	131	3.90E-01	4.50E-02	7.50E-03	0.23	Y	3%	100%
SVOC	bis(2-Chloroethyl)ether	11	160	9.50E+00	1.63E-01	7.50E-03	0.23	Y	12%	100%
SVOC	bis(2-Chloroethyl)ether	12	75	3.05E-01	3.21E-02	7.50E-03	0.23	Y	3%	100%
SVOC	bis(2-Chloroisopropyl)ether	01	203	7.50E+00	2.26E-01	8.00E-03	310	N	0%	100%
SVOC	bis(2-Chloroisopropyl)ether	02	184	3.80E+00	2.06E-01	8.00E-03	310	N	0%	100%
SVOC	bis(2-Chloroisopropyl)ether	03	50	1.60E-01	8.81E-02	8.00E-03	310	N	0%	100%
SVOC	bis(2-Chloroisopropyl)ether	04	59	1.40E+00	2.38E-01	6.00E-02	310	N	0%	100%
SVOC	bis(2-Chloroisopropyl)ether	05	85	3.00E-01	8.51E-02	3.20E-02	310	N	0%	100%
SVOC	bis(2-Chloroisopropyl)ether	06	96	7.50E-01	9.11E-02	6.00E-02	310	N	0%	100%
SVOC	bis(2-Chloroisopropyl)ether	07	31	7.00E-02	4.35E-02	8.00E-03	310	N	0%	100%
SVOC	bis(2-Chloroisopropyl)ether	08	82	8.00E-01	9.34E-02	8.00E-03	310	N	0%	100%
SVOC	bis(2-Chloroisopropyl)ether	09	128	1.55E+00	9.17E-02	8.00E-03	310	N	0%	100%
SVOC	bis(2-Chloroisopropyl)ether	10	131	3.90E-01	9.58E-02	8.00E-03	310	N	0%	100%
SVOC	bis(2-Chloroisopropyl)ether	11	160	2.15E+01	3.57E-01	8.00E-03	310	N	0%	100%
SVOC	bis(2-Chloroisopropyl)ether	12	75	3.05E-01	5.50E-02	8.00E-03	310	N	0%	100%
SVOC	bis(2-Ethylhexyl)phthalate	01	203	4.95E+00	1.27E-01	4.75E-03	39	N	0%	97%
SVOC	bis(2-Ethylhexyl)phthalate	02	184	2.50E+00	1.40E-01	4.65E-03	39	N	0%	89%
SVOC	bis(2-Ethylhexyl)phthalate	03	50	1.35E-01	5.63E-02	4.65E-03	39	N	0%	99%
SVOC	bis(2-Ethylhexyl)phthalate	04	59	1.20E+00	2.42E-01	1.85E-02	39	N	0%	76%
SVOC	bis(2-Ethylhexyl)phthalate	05	85	4.90E-01	5.67E-02	1.85E-02	39	N	0%	95%
SVOC	bis(2-Ethylhexyl)phthalate	06	96	3.70E-01	4.62E-02	1.85E-02	39	N	0%	95%
SVOC	bis(2-Ethylhexyl)phthalate	07	31	4.70E-02	1.94E-02	4.65E-03	39	N	0%	100%
SVOC	bis(2-Ethylhexyl)phthalate	08	82	6.50E-01	6.95E-02	4.65E-03	39	N	0%	95%
SVOC	bis(2-Ethylhexyl)phthalate	09	128	7.90E-01	6.56E-02	4.65E-03	39	N	0%	92%
SVOC	bis(2-Ethylhexyl)phthalate	10	131	1.50E+00	1.12E-01	4.65E-03	39	N	0%	93%
SVOC	bis(2-Ethylhexyl)phthalate	11	160	1.45E+01	2.53E-01	4.65E-03	39	N	0%	98%
SVOC	bis(2-Ethylhexyl)phthalate	12	75	5.80E-01	5.00E-02	4.65E-03	39	N	0%	98%
SVOC	Chrysene	01	200	1.20E+00	3.28E-02	1.00E-03	16	N	0%	97%
SVOC	Chrysene	02	184	6.00E-01	3.40E-02	2.00E-03	16	N	0%	99%
SVOC	Chrysene	03	51	9.00E-02	3.07E-02	2.00E-03	16	N	0%	100%
SVOC	Chrysene	04	59	2.60E+00	1.69E-01	2.05E-03	16	N	0%	86%
SVOC	Chrysene	05	85	1.40E-01	2.45E-02	2.05E-03	16	N	0%	95%
SVOC	Chrysene	06	93	9.00E-01	3.89E-02	2.05E-03	16	N	0%	95%
SVOC	Chrysene	07	31	4.20E-02	1.78E-02	5.50E-03	16	N	0%	100%
SVOC	Chrysene	08	82	4.30E-01	3.10E-02	2.05E-03	16	N	0%	95%
SVOC	Chrysene	09	128	5.50E-01	2.56E-02	2.05E-03	16	N	0%	95%
SVOC	Chrysene	10	131	1.25E-01	3.10E-02	2.05E-03	16	N	0%	95%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	Chrysene	11	160	4.45E+00	7.12E-02	2.00E-03	16	N	0%	95%
SVOC	Chrysene	12	72	4.25E-02	7.71E-03	2.00E-03	16	N	0%	99%
SVOC	Dibenz(a,h)anthracene	01	200	2.70E+00	5.67E-02	1.25E-03	0.016	Y	41%	100%
SVOC	Dibenz(a,h)anthracene	02	184	1.35E+00	6.10E-02	2.00E-03	0.016	Y	43%	100%
SVOC	Dibenz(a,h)anthracene	03	51	1.35E-01	4.76E-02	2.00E-03	0.016	Y	65%	100%
SVOC	Dibenz(a,h)anthracene	04	59	6.50E-01	8.39E-02	2.05E-03	0.016	Y	72%	94%
SVOC	Dibenz(a,h)anthracene	05	85	1.35E-01	2.57E-02	2.05E-03	0.016	Y	55%	99%
SVOC	Dibenz(a,h)anthracene	06	93	2.55E-01	2.35E-02	2.05E-03	0.016	Y	59%	97%
SVOC	Dibenz(a,h)anthracene	07	31	4.20E-02	1.37E-02	9.00E-03	0.016	Y	9%	100%
SVOC	Dibenz(a,h)anthracene	08	82	6.50E-01	3.80E-02	2.05E-03	0.016	Y	28%	100%
SVOC	Dibenz(a,h)anthracene	09	128	3.00E-01	2.05E-02	2.05E-03	0.016	Y	27%	100%
SVOC	Dibenz(a,h)anthracene	10	131	2.00E-01	4.01E-02	2.05E-03	0.016	Y	31%	100%
SVOC	Dibenz(a,h)anthracene	11	160	2.45E+00	5.56E-02	2.00E-03	0.016	Y	52%	99%
SVOC	Dibenz(a,h)anthracene	12	72	2.35E-02	7.02E-03	2.00E-03	0.016	Y	3%	100%
SVOC	Dibenzofuran	01	203	3.65E+00	1.02E-01	4.90E-03	7.3	N	0%	100%
SVOC	Dibenzofuran	02	184	1.15E+00	7.90E-02	4.80E-03	7.3	N	0%	100%
SVOC	Dibenzofuran	03	50	1.05E-01	4.60E-02	4.80E-03	7.3	N	0%	100%
SVOC	Dibenzofuran	04	59	7.00E-01	1.11E-01	2.10E-02	7.3	N	0%	100%
SVOC	Dibenzofuran	05	85	1.60E-01	3.99E-02	2.20E-02	7.3	N	0%	100%
SVOC	Dibenzofuran	06	96	2.20E-01	3.66E-02	2.15E-02	7.3	N	0%	98%
SVOC	Dibenzofuran	07	31	3.80E-02	2.32E-02	4.80E-03	7.3	N	0%	100%
SVOC	Dibenzofuran	08	82	5.00E-01	4.69E-02	4.80E-03	7.3	N	0%	100%
SVOC	Dibenzofuran	09	128	8.50E-01	4.85E-02	4.80E-03	7.3	N	0%	100%
SVOC	Dibenzofuran	10	131	1.95E-01	5.26E-02	4.80E-03	7.3	N	0%	100%
SVOC	Dibenzofuran	11	160	1.10E+01	1.84E-01	4.80E-03	7.3	Y	2%	100%
SVOC	Dibenzofuran	12	75	3.05E-01	3.45E-02	4.80E-03	7.3	N	0%	100%
SVOC	Diethyl phthalate	01	203	5.00E+00	1.32E-01	7.50E-03	5100	N	0%	100%
SVOC	Diethyl phthalate	02	184	1.35E+00	9.44E-02	7.00E-03	5100	N	0%	98%
SVOC	Diethyl phthalate	03	50	1.05E-01	5.13E-02	7.00E-03	5100	N	0%	100%
SVOC	Diethyl phthalate	04	59	1.00E+00	1.30E-01	1.95E-02	5100	N	0%	100%
SVOC	Diethyl phthalate	05	85	2.70E-01	5.28E-02	2.00E-02	5100	N	0%	100%
SVOC	Diethyl phthalate	06	96	2.55E-01	4.22E-02	1.95E-02	5100	N	0%	100%
SVOC	Diethyl phthalate	07	31	6.50E-02	3.91E-02	7.00E-03	5100	N	0%	91%
SVOC	Diethyl phthalate	08	82	5.00E-01	6.09E-02	7.00E-03	5100	N	0%	99%
SVOC	Diethyl phthalate	09	128	4.20E+00	1.10E-01	7.00E-03	5100	N	0%	96%
SVOC	Diethyl phthalate	10	131	2.75E-01	6.68E-02	7.00E-03	5100	N	0%	100%
SVOC	Diethyl phthalate	11	160	1.55E+01	2.67E-01	7.00E-03	5100	N	0%	100%
SVOC	Diethyl phthalate	12	75	4.85E-01	5.75E-02	7.00E-03	5100	N	0%	92%
SVOC	dI-n-Butyl phthalate	01	203	4.95E+00	1.10E-01	6.00E-03	630	N	0%	100%
SVOC	dI-n-Butyl phthalate	02	184	5.50E-01	6.28E-02	6.00E-03	630	N	0%	97%
SVOC	dI-n-Butyl phthalate	03	50	1.05E-01	4.33E-02	6.00E-03	630	N	0%	100%
SVOC	dI-n-Butyl phthalate	04	59	9.50E-01	1.13E-01	7.00E-03	630	N	0%	100%
SVOC	dI-n-Butyl phthalate	05	85	1.00E-01	3.08E-02	7.00E-03	630	N	0%	100%
SVOC	dI-n-Butyl phthalate	06	96	2.40E-01	2.61E-02	7.00E-03	630	N	0%	99%
SVOC	dI-n-Butyl phthalate	07	31	5.50E-02	1.35E-02	6.00E-03	630	N	0%	94%
SVOC	dI-n-Butyl phthalate	08	82	5.00E-01	3.26E-02	6.00E-03	630	N	0%	96%
SVOC	dI-n-Butyl phthalate	09	128	4.80E-01	4.70E-02	6.00E-03	630	N	0%	98%
SVOC	dI-n-Butyl phthalate	10	131	2.65E-01	4.67E-02	6.00E-03	630	N	0%	100%
SVOC	dI-n-Butyl phthalate	11	160	1.45E+01	1.68E-01	6.00E-03	630	N	0%	99%
SVOC	dI-n-Butyl phthalate	12	75	4.60E-01	4.16E-02	6.00E-03	630	N	0%	100%
SVOC	Fluoranthene	01	200	9.50E-01	3.13E-02	1.00E-03	240	N	0%	97%
SVOC	Fluoranthene	02	184	1.35E+00	3.70E-02	2.00E-03	240	N	0%	98%
SVOC	Fluoranthene	03	51	1.00E-01	3.53E-02	2.00E-03	240	N	0%	100%
SVOC	Fluoranthene	04	59	3.50E+00	2.26E-01	2.05E-03	240	N	0%	78%
SVOC	Fluoranthene	05	85	2.70E-01	3.89E-02	2.05E-03	240	N	0%	94%
SVOC	Fluoranthene	06	93	2.20E+00	8.09E-02	2.05E-03	240	N	0%	94%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	Fluoranthene	07	31	6.50E-02	3.64E-02	5.50E-03	240	N	0%	100%
SVOC	Fluoranthene	08	82	4.85E-01	5.14E-02	2.05E-03	240	N	0%	95%
SVOC	Fluoranthene	09	128	1.40E+00	4.80E-02	2.05E-03	240	N	0%	98%
SVOC	Fluoranthene	10	131	2.40E-01	4.69E-02	2.05E-03	240	N	0%	95%
SVOC	Fluoranthene	11	160	1.15E+01	1.54E-01	2.00E-03	240	N	0%	95%
SVOC	Fluoranthene	12	72	1.10E-01	1.42E-02	2.00E-03	240	N	0%	100%
SVOC	Fluorene	01	200	3.80E+00	1.04E-01	1.00E-03	240	N	0%	97%
SVOC	Fluorene	02	184	1.05E+00	4.79E-02	2.00E-03	240	N	0%	100%
SVOC	Fluorene	03	51	1.00E-01	3.53E-02	2.00E-03	240	N	0%	100%
SVOC	Fluorene	04	59	4.70E-01	6.23E-02	2.05E-03	240	N	0%	99%
SVOC	Fluorene	05	85	9.50E-02	2.09E-02	2.05E-03	240	N	0%	100%
SVOC	Fluorene	06	93	2.00E-01	2.19E-02	2.05E-03	240	N	0%	97%
SVOC	Fluorene	07	31	4.20E-02	1.25E-02	3.95E-03	240	N	0%	100%
SVOC	Fluorene	08	82	4.85E-01	3.07E-02	2.05E-03	240	N	0%	98%
SVOC	Fluorene	09	128	3.25E-01	1.77E-02	2.05E-03	240	N	0%	98%
SVOC	Fluorene	10	131	1.45E-01	3.10E-02	2.05E-03	240	N	0%	99%
SVOC	Fluorene	11	160	3.40E+00	6.60E-02	2.00E-03	240	N	0%	97%
SVOC	Fluorene	12	72	2.55E-02	5.20E-03	2.00E-03	240	N	0%	100%
SVOC	Hexachlorobenzene	01	203	3.85E+00	9.95E-02	8.00E-03	0.21	Y	14%	100%
SVOC	Hexachlorobenzene	02	184	9.00E-01	6.77E-02	7.50E-03	0.21	Y	10%	100%
SVOC	Hexachlorobenzene	03	50	1.15E-01	4.56E-02	7.50E-03	0.21	N	0%	100%
SVOC	Hexachlorobenzene	04	59	7.50E-01	1.11E-01	9.50E-03	0.21	Y	12%	100%
SVOC	Hexachlorobenzene	05	85	1.10E-01	3.10E-02	9.50E-03	0.21	N	0%	100%
SVOC	Hexachlorobenzene	06	96	1.85E-01	2.73E-02	9.50E-03	0.21	N	0%	100%
SVOC	Hexachlorobenzene	07	31	3.65E-02	1.16E-02	7.50E-03	0.21	N	0%	100%
SVOC	Hexachlorobenzene	08	82	5.50E-01	3.46E-02	7.50E-03	0.21	Y	4%	100%
SVOC	Hexachlorobenzene	09	128	3.70E-01	3.62E-02	7.50E-03	0.21	Y	9%	100%
SVOC	Hexachlorobenzene	10	131	2.05E-01	4.68E-02	7.50E-03	0.21	N	0%	100%
SVOC	Hexachlorobenzene	11	160	1.15E+01	1.47E-01	7.50E-03	0.21	Y	10%	100%
SVOC	Hexachlorobenzene	12	75	3.60E-01	3.42E-02	7.50E-03	0.21	Y	3%	100%
SVOC	Hexachlorobutadiene	01	397	7.50E+00	1.39E-01	4.65E-05	1.2	Y	5%	100%
SVOC	Hexachlorobutadiene	02	363	3.80E+00	1.12E-01	4.45E-05	1.2	Y	5%	100%
SVOC	Hexachlorobutadiene	03	101	1.35E-01	3.96E-02	4.35E-05	1.2	N	0%	100%
SVOC	Hexachlorobutadiene	04	107	1.40E+00	1.55E-01	4.70E-05	1.2	Y	4%	100%
SVOC	Hexachlorobutadiene	05	158	1.60E-01	4.44E-02	4.10E-05	1.2	N	0%	100%
SVOC	Hexachlorobutadiene	06	186	7.50E-01	4.48E-02	4.65E-05	1.2	N	0%	100%
SVOC	Hexachlorobutadiene	07	60	7.00E-02	1.70E-02	4.60E-05	1.2	N	0%	100%
SVOC	Hexachlorobutadiene	08	162	3.70E-01	3.31E-02	4.50E-05	1.2	N	0%	100%
SVOC	Hexachlorobutadiene	09	241	8.00E-01	4.50E-02	4.55E-05	1.2	N	0%	100%
SVOC	Hexachlorobutadiene	10	261	3.90E-01	4.07E-02	4.55E-05	1.2	N	0%	100%
SVOC	Hexachlorobutadiene	11	308	2.15E+01	1.66E-01	4.10E-05	1.2	Y	8%	100%
SVOC	Hexachlorobutadiene	12	142	3.05E-01	2.74E-02	4.25E-05	1.2	N	0%	100%
SVOC	Hexachlorocyclopentadiene	01	195	7.50E+00	1.80E-01	5.00E-03	0.18	Y	19%	100%
SVOC	Hexachlorocyclopentadiene	02	178	1.90E+00	1.28E-01	5.00E-03	0.18	Y	20%	100%
SVOC	Hexachlorocyclopentadiene	03	50	1.70E-01	7.38E-02	5.00E-03	0.18	N	0%	100%
SVOC	Hexachlorocyclopentadiene	04	58	1.40E+00	1.90E-01	1.00E-02	0.18	Y	40%	100%
SVOC	Hexachlorocyclopentadiene	05	85	1.65E-01	5.36E-02	1.00E-02	0.18	N	0%	100%
SVOC	Hexachlorocyclopentadiene	06	96	3.65E-01	5.37E-02	1.00E-02	0.18	Y	8%	100%
SVOC	Hexachlorocyclopentadiene	07	31	7.00E-02	1.40E-02	5.00E-03	0.18	N	0%	100%
SVOC	Hexachlorocyclopentadiene	08	82	8.50E-01	5.48E-02	5.00E-03	0.18	Y	8%	100%
SVOC	Hexachlorocyclopentadiene	09	127	7.00E-01	5.76E-02	5.00E-03	0.18	Y	12%	100%
SVOC	Hexachlorocyclopentadiene	10	131	3.90E-01	7.44E-02	5.00E-03	0.18	Y	8%	100%
SVOC	Hexachlorocyclopentadiene	11	160	2.15E+01	2.54E-01	5.00E-03	0.18	Y	18%	100%
SVOC	Hexachlorocyclopentadiene	12	75	4.60E-01	5.11E-02	5.00E-03	0.18	Y	3%	100%
SVOC	Hexachloroethane	01	203	1.10E+01	2.80E-01	9.00E-03	1.8	Y	4%	100%
SVOC	Hexachloroethane	02	184	5.50E+00	2.72E-01	8.50E-03	1.8	Y	5%	100%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	Hexachloroethane	03	50	1.55E-01	9.81E-02	8.50E-03	1.8	N	0%	100%
SVOC	Hexachloroethane	04	58	1.40E+00	2.67E-01	6.50E-02	1.8	N	0%	100%
SVOC	Hexachloroethane	05	85	3.40E-01	9.93E-02	3.45E-02	1.8	N	0%	100%
SVOC	Hexachloroethane	06	96	1.05E+00	1.15E-01	6.50E-02	1.8	N	0%	100%
SVOC	Hexachloroethane	07	31	8.00E-02	4.84E-02	8.50E-03	1.8	N	0%	100%
SVOC	Hexachloroethane	08	81	5.00E-01	9.79E-02	8.50E-03	1.8	N	0%	100%
SVOC	Hexachloroethane	09	128	1.75E+00	9.69E-02	8.50E-03	1.8	N	0%	100%
SVOC	Hexachloroethane	10	131	5.50E-01	1.04E-01	8.50E-03	1.8	N	0%	100%
SVOC	Hexachloroethane	11	160	2.15E+01	3.83E-01	8.50E-03	1.8	Y	8%	100%
SVOC	Hexachloroethane	12	75	3.30E-01	5.78E-02	8.50E-03	1.8	N	0%	100%
SVOC	Indeno(1,2,3-c,d)pyrene	01	200	2.65E+00	5.64E-02	1.25E-03	0.16	Y	7%	100%
SVOC	Indeno(1,2,3-c,d)pyrene	02	184	1.30E+00	5.81E-02	2.00E-03	0.16	Y	7%	100%
SVOC	Indeno(1,2,3-c,d)pyrene	03	51	1.35E-01	4.76E-02	2.00E-03	0.16	N	0%	100%
SVOC	Indeno(1,2,3-c,d)pyrene	04	59	6.50E-01	1.04E-01	2.05E-03	0.16	Y	16%	90%
SVOC	Indeno(1,2,3-c,d)pyrene	05	85	1.35E-01	2.62E-02	2.05E-03	0.16	N	0%	97%
SVOC	Indeno(1,2,3-c,d)pyrene	06	93	2.50E-01	2.27E-02	2.05E-03	0.16	Y	3%	99%
SVOC	Indeno(1,2,3-c,d)pyrene	07	31	4.20E-02	1.09E-02	5.50E-03	0.16	N	0%	100%
SVOC	Indeno(1,2,3-c,d)pyrene	08	82	6.50E-01	3.60E-02	2.05E-03	0.16	Y	4%	100%
SVOC	Indeno(1,2,3-c,d)pyrene	09	128	2.30E-01	1.78E-02	2.05E-03	0.16	Y	9%	98%
SVOC	Indeno(1,2,3-c,d)pyrene	10	131	2.00E-01	3.91E-02	2.05E-03	0.16	Y	3%	99%
SVOC	Indeno(1,2,3-c,d)pyrene	11	160	1.85E+00	4.99E-02	2.00E-03	0.16	Y	18%	98%
SVOC	Indeno(1,2,3-c,d)pyrene	12	72	1.80E-02	5.04E-03	2.00E-03	0.16	N	0%	100%
SVOC	Isophorone	01	203	3.65E+00	1.03E-01	7.50E-03	570	N	0%	100%
SVOC	Isophorone	02	184	1.20E+00	7.74E-02	7.00E-03	570	N	0%	100%
SVOC	Isophorone	03	50	1.15E-01	4.71E-02	7.00E-03	570	N	0%	100%
SVOC	Isophorone	04	59	7.00E-01	1.15E-01	1.00E-02	570	N	0%	100%
SVOC	Isophorone	05	85	1.10E-01	3.27E-02	1.00E-02	570	N	0%	100%
SVOC	Isophorone	06	96	2.30E-01	3.13E-02	1.00E-02	570	N	0%	100%
SVOC	Isophorone	07	31	3.50E-02	1.15E-02	7.00E-03	570	N	0%	100%
SVOC	Isophorone	08	82	5.50E-01	3.66E-02	7.00E-03	570	N	0%	100%
SVOC	Isophorone	09	128	3.55E-01	3.54E-02	7.00E-03	570	N	0%	100%
SVOC	Isophorone	10	131	1.95E-01	4.72E-02	7.00E-03	570	N	0%	100%
SVOC	Isophorone	11	160	1.10E+01	1.44E-01	7.00E-03	570	N	0%	100%
SVOC	Isophorone	12	75	3.05E-01	3.12E-02	7.00E-03	570	N	0%	100%
SVOC	Nitrobenzene	01	203	5.50E+00	1.57E-01	8.50E-03	5.1	Y	1%	100%
SVOC	Nitrobenzene	02	184	2.65E+00	1.46E-01	8.00E-03	5.1	N	0%	100%
SVOC	Nitrobenzene	03	50	1.30E-01	6.51E-02	8.00E-03	5.1	N	0%	100%
SVOC	Nitrobenzene	04	59	7.50E-01	1.59E-01	3.60E-02	5.1	N	0%	100%
SVOC	Nitrobenzene	05	85	2.75E-01	6.15E-02	3.60E-02	5.1	N	0%	100%
SVOC	Nitrobenzene	06	96	5.00E-01	6.01E-02	3.50E-02	5.1	N	0%	100%
SVOC	Nitrobenzene	07	31	6.50E-02	3.76E-02	8.00E-03	5.1	N	0%	100%
SVOC	Nitrobenzene	08	82	6.50E-01	7.43E-02	8.00E-03	5.1	N	0%	100%
SVOC	Nitrobenzene	09	128	1.45E+00	6.72E-02	8.00E-03	5.1	N	0%	100%
SVOC	Nitrobenzene	10	131	2.60E-01	7.28E-02	8.00E-03	5.1	N	0%	100%
SVOC	Nitrobenzene	11	160	1.15E+01	2.43E-01	8.00E-03	5.1	Y	4%	100%
SVOC	Nitrobenzene	12	75	3.60E-01	4.28E-02	8.00E-03	5.1	N	0%	100%
SVOC	N-Nitrosodimethylamine	01	42	9.50E-03	8.58E-03	8.50E-03	0.002	Y	100%	100%
SVOC	N-Nitrosodimethylamine	02	78	1.70E-02	8.49E-03	8.00E-03	0.002	Y	100%	100%
SVOC	N-Nitrosodimethylamine	03	4	8.00E-03	8.00E-03	8.00E-03	0.002	Y	100%	100%
SVOC	N-Nitrosodimethylamine	07	12	8.00E-03	8.00E-03	8.00E-03	0.002	Y	100%	100%
SVOC	N-Nitrosodimethylamine	08	4	8.00E-03	8.00E-03	8.00E-03	0.002	Y	100%	100%
SVOC	N-Nitrosodimethylamine	09	47	4.05E-02	1.07E-02	8.00E-03	0.002	Y	100%	100%
SVOC	N-Nitrosodimethylamine	10	4	8.00E-03	8.00E-03	8.00E-03	0.002	Y	100%	100%
SVOC	N-Nitrosodimethylamine	11	24	4.50E-02	1.34E-02	8.00E-03	0.002	Y	100%	100%
SVOC	N-Nitrosodimethylamine	12	38	8.00E-03	8.00E-03	8.00E-03	0.002	Y	100%	100%
SVOC	N-Nitroso-di-n-propylamine	01	203	3.85E+00	1.24E-01	7.50E-03	0.078	Y	19%	100%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	N-Nitroso-di-n-propylamine	02	184	1.65E+00	9.83E-02	7.50E-03	0.078	Y	20%	100%
SVOC	N-Nitroso-di-n-propylamine	03	50	1.30E-01	5.51E-02	7.50E-03	0.078	Y	26%	100%
SVOC	N-Nitroso-di-n-propylamine	04	59	7.50E-01	1.34E-01	1.05E-02	0.078	Y	64%	100%
SVOC	N-Nitroso-di-n-propylamine	05	85	1.25E-01	3.81E-02	1.05E-02	0.078	Y	7%	100%
SVOC	N-Nitroso-di-n-propylamine	06	96	3.20E-01	3.89E-02	1.05E-02	0.078	Y	8%	100%
SVOC	N-Nitroso-di-n-propylamine	07	31	3.65E-02	1.20E-02	7.50E-03	0.078	N	0%	100%
SVOC	N-Nitroso-di-n-propylamine	08	82	6.50E-01	4.72E-02	7.50E-03	0.078	Y	20%	99%
SVOC	N-Nitroso-di-n-propylamine	09	128	3.70E-01	3.71E-02	7.50E-03	0.078	Y	21%	100%
SVOC	N-Nitroso-di-n-propylamine	10	131	2.05E-01	5.33E-02	7.50E-03	0.078	Y	28%	100%
SVOC	N-Nitroso-di-n-propylamine	11	160	1.15E+01	1.55E-01	7.50E-03	0.078	Y	26%	100%
SVOC	N-Nitroso-di-n-propylamine	12	75	3.60E-01	3.44E-02	7.50E-03	0.078	Y	6%	100%
SVOC	N-Nitrosodiphenylamine	01	203	4.40E+00	1.28E-01	8.50E-03	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	02	184	1.45E+00	9.88E-02	8.50E-03	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	03	50	1.05E-01	5.02E-02	8.50E-03	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	04	59	8.50E-01	1.28E-01	2.70E-02	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	05	85	1.70E-01	4.54E-02	2.75E-02	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	06	96	2.75E-01	4.14E-02	2.70E-02	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	07	31	4.20E-02	2.63E-02	8.50E-03	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	08	82	5.00E-01	5.08E-02	8.50E-03	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	09	128	9.00E-01	5.58E-02	8.50E-03	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	10	131	2.35E-01	5.74E-02	8.50E-03	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	11	160	1.30E+01	2.07E-01	8.50E-03	110	N	0%	100%
SVOC	N-Nitrosodiphenylamine	12	75	4.10E-01	4.32E-02	8.50E-03	110	N	0%	100%
SVOC	Pentachlorophenol	01	202	8.00E+00	2.40E-01	6.00E-03	1	Y	5%	100%
SVOC	Pentachlorophenol	02	184	2.95E+00	1.87E-01	6.00E-03	1	Y	6%	100%
SVOC	Pentachlorophenol	03	50	1.10E-01	7.17E-02	6.00E-03	1	N	0%	100%
SVOC	Pentachlorophenol	04	58	1.60E+00	2.08E-01	4.05E-02	1	Y	4%	100%
SVOC	Pentachlorophenol	05	84	2.05E-01	7.27E-02	4.05E-02	1	N	0%	100%
SVOC	Pentachlorophenol	06	95	4.00E-01	6.49E-02	4.00E-02	1	N	0%	100%
SVOC	Pentachlorophenol	07	31	8.00E-02	3.28E-02	6.00E-03	1	N	0%	100%
SVOC	Pentachlorophenol	08	82	5.50E-01	6.98E-02	6.00E-03	1	N	0%	100%
SVOC	Pentachlorophenol	09	128	1.05E+00	8.32E-02	6.00E-03	1	Y	3%	99%
SVOC	Pentachlorophenol	10	130	4.40E-01	8.06E-02	6.00E-03	1	N	0%	100%
SVOC	Pentachlorophenol	11	158	2.40E+01	3.24E-01	6.00E-03	1	Y	8%	100%
SVOC	Pentachlorophenol	12	75	7.50E-01	7.26E-02	6.00E-03	1	N	0%	100%
SVOC	Phenanthrene	01	200	5.60E+00	1.32E-01	1.00E-03	1800	N	0%	95%
SVOC	Phenanthrene	02	184	4.00E+00	1.05E-01	2.00E-03	1800	N	0%	94%
SVOC	Phenanthrene	03	51	9.50E-02	3.24E-02	2.00E-03	1800	N	0%	100%
SVOC	Phenanthrene	04	59	2.10E+00	1.71E-01	2.05E-03	1800	N	0%	82%
SVOC	Phenanthrene	05	85	9.00E-02	1.91E-02	2.05E-03	1800	N	0%	95%
SVOC	Phenanthrene	06	93	3.20E+00	1.03E-01	2.05E-03	1800	N	0%	95%
SVOC	Phenanthrene	07	31	4.20E-02	1.27E-02	7.00E-03	1800	N	0%	100%
SVOC	Phenanthrene	08	82	4.60E-01	2.83E-02	2.05E-03	1800	N	0%	96%
SVOC	Phenanthrene	09	128	7.70E-01	2.24E-02	2.05E-03	1800	N	0%	98%
SVOC	Phenanthrene	10	131	1.40E-01	3.01E-02	2.05E-03	1800	N	0%	94%
SVOC	Phenanthrene	11	160	8.60E+00	1.13E-01	2.00E-03	1800	N	0%	94%
SVOC	Phenanthrene	12	72	2.25E-02	6.12E-03	2.00E-03	1800	N	0%	100%
SVOC	Phenol	01	202	4.95E+00	1.36E-01	6.50E-03	1900	N	0%	100%
SVOC	Phenol	02	184	1.40E+00	1.00E-01	6.00E-03	1900	N	0%	100%
SVOC	Phenol	03	50	1.15E-01	5.35E-02	6.00E-03	1900	N	0%	100%
SVOC	Phenol	04	58	9.50E-01	1.34E-01	2.65E-02	1900	N	0%	100%
SVOC	Phenol	05	85	1.40E-01	4.55E-02	2.75E-02	1900	N	0%	100%
SVOC	Phenol	06	95	2.40E-01	3.60E-02	2.70E-02	1900	N	0%	100%
SVOC	Phenol	07	31	4.70E-02	2.24E-02	6.00E-03	1900	N	0%	100%
SVOC	Phenol	08	82	5.50E-01	4.96E-02	6.00E-03	1900	N	0%	100%
SVOC	Phenol	09	128	7.00E-01	5.39E-02	6.00E-03	1900	N	0%	100%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
SVOC	Phenol	10	130	2.65E-01	5.92E-02	6.00E-03	1900	N	0%	100%
SVOC	Phenol	11	158	1.45E+01	2.06E-01	6.00E-03	1900	N	0%	100%
SVOC	Phenol	12	75	4.60E-01	4.53E-02	6.00E-03	1900	N	0%	100%
SVOC	Pyrene	01	200	2.10E+00	4.60E-02	1.00E-03	180	N	0%	97%
SVOC	Pyrene	02	184	1.00E+00	4.84E-02	2.00E-03	180	N	0%	96%
SVOC	Pyrene	03	51	8.00E-02	3.13E-02	2.00E-03	180	N	0%	100%
SVOC	Pyrene	04	59	2.60E+00	1.90E-01	2.05E-03	180	N	0%	78%
SVOC	Pyrene	05	85	1.90E-01	2.47E-02	2.05E-03	180	N	0%	90%
SVOC	Pyrene	06	93	2.60E+00	8.87E-02	2.05E-03	180	N	0%	94%
SVOC	Pyrene	07	31	4.20E-02	1.25E-02	6.00E-03	180	N	0%	100%
SVOC	Pyrene	08	82	4.05E-01	2.75E-02	2.05E-03	180	N	0%	96%
SVOC	Pyrene	09	128	1.10E+00	2.58E-02	2.05E-03	180	N	0%	97%
SVOC	Pyrene	10	131	1.40E-01	2.85E-02	2.05E-03	180	N	0%	95%
SVOC	Pyrene	11	160	3.30E+00	7.40E-02	2.00E-03	180	N	0%	95%
SVOC	Pyrene	12	72	2.30E-02	5.75E-03	2.00E-03	180	N	0%	100%
TPH	Diesel Range Organics (C13-C22)	01	241	1.90E+04	4.70E+02	4.20E-01	8.2	Y	37%	60%
TPH	Diesel Range Organics (C13-C22)	02	322	1.60E+04	3.84E+02	4.20E-01	8.2	Y	39%	63%
TPH	Diesel Range Organics (C13-C22)	03	51	6.70E+00	1.04E+00	4.20E-01	8.2	N	0%	82%
TPH	Diesel Range Organics (C13-C22)	04	98	3.10E+03	1.23E+02	4.20E-01	8.2	Y	38%	58%
TPH	Diesel Range Organics (C13-C22)	05	121	1.10E+02	7.85E+00	4.20E-01	8.2	Y	24%	56%
TPH	Diesel Range Organics (C13-C22)	06	93	1.60E+03	1.19E+01	4.20E-01	8.2	Y	8%	64%
TPH	Diesel Range Organics (C13-C22)	07	45	2.00E+01	2.71E+00	4.25E-01	8.2	Y	13%	64%
TPH	Diesel Range Organics (C13-C22)	08	104	2.00E+02	7.89E+00	4.20E-01	8.2	Y	9%	74%
TPH	Diesel Range Organics (C13-C22)	09	156	4.10E+03	9.06E+01	4.15E-01	8.2	Y	45%	69%
TPH	Diesel Range Organics (C13-C22)	10	153	8.60E+02	8.47E+00	4.20E-01	8.2	Y	17%	84%
TPH	Diesel Range Organics (C13-C22)	11	219	1.20E+04	2.26E+02	4.15E-01	8.2	Y	33%	70%
TPH	Diesel Range Organics (C13-C22)	12	75	2.10E+03	9.09E+01	4.25E-01	8.2	Y	21%	55%
TPH	Gasoline Range Organics (C4-C12)	01	240	7.40E+03	1.28E+02	5.50E-02	8.2	Y	10%	88%
TPH	Gasoline Range Organics (C4-C12)	02	318	8.20E+01	1.92E+00	6.00E-02	8.2	Y	3%	96%
TPH	Gasoline Range Organics (C4-C12)	03	51	2.95E+00	1.58E+00	6.00E-02	8.2	N	0%	100%
TPH	Gasoline Range Organics (C4-C12)	04	91	2.50E+00	4.47E-01	6.50E-02	8.2	N	0%	90%
TPH	Gasoline Range Organics (C4-C12)	05	123	2.65E+00	9.64E-01	6.50E-02	8.2	N	0%	100%
TPH	Gasoline Range Organics (C4-C12)	06	92	2.75E+00	1.24E+00	4.95E-02	8.2	N	0%	98%
TPH	Gasoline Range Organics (C4-C12)	07	45	2.10E+00	6.55E-01	5.50E-02	8.2	N	0%	62%
TPH	Gasoline Range Organics (C4-C12)	08	104	2.65E+00	1.47E+00	6.00E-02	8.2	N	0%	100%
TPH	Gasoline Range Organics (C4-C12)	09	156	2.10E+01	6.35E-01	6.00E-02	8.2	Y	3%	93%
TPH	Gasoline Range Organics (C4-C12)	10	153	2.65E+00	5.80E-01	6.50E-02	8.2	N	0%	94%
TPH	Gasoline Range Organics (C4-C12)	11	215	1.50E+03	2.94E+01	5.00E-02	8.2	Y	6%	84%
TPH	Gasoline Range Organics (C4-C12)	12	67	1.20E+00	4.17E-01	6.00E-02	8.2	N	0%	91%
TPH	Motor Oil Range Organics (C23-C40)	01	241	3.00E+03	7.60E+01	9.50E-01	8.2	Y	48%	52%
TPH	Motor Oil Range Organics (C23-C40)	02	322	6.00E+04	1.30E+03	9.50E-01	8.2	Y	60%	48%
TPH	Motor Oil Range Organics (C23-C40)	03	51	4.60E+01	3.62E+00	9.50E-01	8.2	Y	26%	55%
TPH	Motor Oil Range Organics (C23-C40)	04	98	1.30E+04	2.51E+02	9.50E-01	8.2	Y	71%	52%
TPH	Motor Oil Range Organics (C23-C40)	05	121	1.00E+03	5.70E+01	9.50E-01	8.2	Y	50%	53%
TPH	Motor Oil Range Organics (C23-C40)	06	93	1.20E+04	8.54E+01	9.50E-01	8.2	Y	30%	43%
TPH	Motor Oil Range Organics (C23-C40)	07	45	1.60E+02	2.00E+01	9.50E-01	8.2	Y	80%	24%
TPH	Motor Oil Range Organics (C23-C40)	08	104	4.90E+02	2.68E+01	9.50E-01	8.2	Y	53%	44%
TPH	Motor Oil Range Organics (C23-C40)	09	156	2.40E+04	5.86E+02	9.50E-01	8.2	Y	68%	36%
TPH	Motor Oil Range Organics (C23-C40)	10	153	1.80E+03	3.35E+01	9.50E-01	8.2	Y	29%	69%
TPH	Motor Oil Range Organics (C23-C40)	11	219	2.70E+04	8.16E+02	9.50E-01	8.2	Y	51%	52%
TPH	Motor Oil Range Organics (C23-C40)	12	75	1.90E+02	1.71E+01	9.50E-01	8.2	Y	42%	36%
VOC	1,1,1,2-Tetrachloroethane	01	197	1.90E+00	3.55E-02	1.95E-05	2	N	0%	100%
VOC	1,1,1,2-Tetrachloroethane	02	183	1.30E-03	1.61E-04	1.90E-05	2	N	0%	100%
VOC	1,1,1,2-Tetrachloroethane	03	51	6.00E-04	1.38E-04	1.85E-05	2	N	0%	100%
VOC	1,1,1,2-Tetrachloroethane	04	48	6.00E-03	2.05E-04	2.00E-05	2	N	0%	100%
VOC	1,1,1,2-Tetrachloroethane	05	77	6.00E-04	1.45E-04	1.75E-05	2	N	0%	100%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	1,1,1,2-Tetrachloroethane	06	90	8.50E-04	1.59E-04	2.00E-05	2	N	0%	100%
VOC	1,1,1,2-Tetrachloroethane	07	30	3.00E-05	2.37E-05	1.95E-05	2	N	0%	100%
VOC	1,1,1,2-Tetrachloroethane	08	82	6.50E-04	7.78E-05	1.90E-05	2	N	0%	100%
VOC	1,1,1,2-Tetrachloroethane	09	118	6.00E-04	1.58E-04	1.95E-05	2	N	0%	100%
VOC	1,1,1,2-Tetrachloroethane	10	130	6.00E-04	2.04E-04	1.95E-05	2	N	0%	100%
VOC	1,1,1,2-Tetrachloroethane	11	148	1.30E+00	2.44E-02	1.75E-05	2	N	0%	100%
VOC	1,1,1,2-Tetrachloroethane	12	67	8.50E-03	5.34E-04	1.80E-05	2	N	0%	100%
VOC	1,1,1-Trichloroethane	01	197	9.50E-01	1.91E-02	3.30E-05	810	N	0%	100%
VOC	1,1,1-Trichloroethane	02	183	1.30E-03	1.60E-04	3.20E-05	810	N	0%	100%
VOC	1,1,1-Trichloroethane	03	51	7.00E-04	1.54E-04	3.15E-05	810	N	0%	100%
VOC	1,1,1-Trichloroethane	04	48	6.00E-03	2.19E-04	3.40E-05	810	N	0%	100%
VOC	1,1,1-Trichloroethane	05	77	6.00E-04	1.58E-04	2.95E-05	810	N	0%	100%
VOC	1,1,1-Trichloroethane	06	90	8.50E-04	1.68E-04	3.35E-05	810	N	0%	100%
VOC	1,1,1-Trichloroethane	07	30	5.00E-05	3.99E-05	3.30E-05	810	N	0%	100%
VOC	1,1,1-Trichloroethane	08	82	6.50E-04	9.11E-05	3.25E-05	810	N	0%	100%
VOC	1,1,1-Trichloroethane	09	118	6.00E-04	1.69E-04	3.25E-05	810	N	0%	100%
VOC	1,1,1-Trichloroethane	10	130	6.00E-04	2.06E-04	3.25E-05	810	N	0%	100%
VOC	1,1,1-Trichloroethane	11	148	6.50E-01	1.42E-02	2.95E-05	810	N	0%	98%
VOC	1,1,1-Trichloroethane	12	67	1.55E-02	7.87E-04	3.05E-05	810	N	0%	100%
VOC	1,1,2,2-Tetrachloroethane	01	197	9.50E-01	2.46E-02	4.05E-05	0.6	Y	1%	100%
VOC	1,1,2,2-Tetrachloroethane	02	183	2.70E-02	5.44E-04	3.90E-05	0.6	N	0%	98%
VOC	1,1,2,2-Tetrachloroethane	03	51	9.00E-04	1.69E-04	3.80E-05	0.6	N	0%	100%
VOC	1,1,2,2-Tetrachloroethane	04	48	6.00E-03	2.27E-04	4.15E-05	0.6	N	0%	100%
VOC	1,1,2,2-Tetrachloroethane	05	74	6.00E-04	1.77E-04	3.60E-05	0.6	N	0%	100%
VOC	1,1,2,2-Tetrachloroethane	06	90	8.50E-04	1.80E-04	4.10E-05	0.6	N	0%	100%
VOC	1,1,2,2-Tetrachloroethane	07	30	6.00E-05	4.89E-05	4.05E-05	0.6	N	0%	100%
VOC	1,1,2,2-Tetrachloroethane	08	82	6.50E-04	9.85E-05	3.95E-05	0.6	N	0%	100%
VOC	1,1,2,2-Tetrachloroethane	09	119	6.00E-04	1.74E-04	3.95E-05	0.6	N	0%	100%
VOC	1,1,2,2-Tetrachloroethane	10	130	6.00E-04	2.34E-04	4.00E-05	0.6	N	0%	100%
VOC	1,1,2,2-Tetrachloroethane	11	148	8.50E-01	2.34E-02	3.60E-05	0.6	Y	5%	100%
VOC	1,1,2,2-Tetrachloroethane	12	67	2.25E-02	1.04E-03	3.75E-05	0.6	N	0%	100%
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	06	3	2.10E-04	2.10E-04	2.10E-04	4000	N	0%	100%
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10	12	2.10E-04	2.10E-04	2.10E-04	4000	N	0%	100%
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11	4	2.10E-04	2.10E-04	2.10E-04	4000	N	0%	100%
VOC	1,1,2-Trichloroethane	01	197	9.50E-01	2.50E-02	9.00E-05	0.15	Y	5%	100%
VOC	1,1,2-Trichloroethane	02	183	4.75E-03	2.78E-04	9.00E-05	0.15	N	0%	98%
VOC	1,1,2-Trichloroethane	03	51	9.00E-04	2.13E-04	8.50E-05	0.15	N	0%	100%
VOC	1,1,2-Trichloroethane	04	48	6.00E-03	2.81E-04	9.50E-05	0.15	N	0%	100%
VOC	1,1,2-Trichloroethane	05	77	6.00E-04	2.11E-04	8.00E-05	0.15	N	0%	100%
VOC	1,1,2-Trichloroethane	06	90	8.50E-04	2.22E-04	9.50E-05	0.15	N	0%	100%
VOC	1,1,2-Trichloroethane	07	30	1.40E-04	1.11E-04	9.00E-05	0.15	N	0%	100%
VOC	1,1,2-Trichloroethane	08	82	6.50E-04	1.55E-04	9.00E-05	0.15	N	0%	99%
VOC	1,1,2-Trichloroethane	09	119	6.00E-04	2.15E-04	9.00E-05	0.15	N	0%	100%
VOC	1,1,2-Trichloroethane	10	130	6.00E-04	2.63E-04	9.00E-05	0.15	N	0%	100%
VOC	1,1,2-Trichloroethane	11	148	9.00E-01	2.42E-02	8.00E-05	0.15	Y	5%	100%
VOC	1,1,2-Trichloroethane	12	67	2.20E-02	1.05E-03	8.50E-05	0.15	N	0%	100%
VOC	1,1-Dichloroethane	01	197	9.50E-01	1.91E-02	2.80E-05	3.6	N	0%	100%
VOC	1,1-Dichloroethane	02	183	1.30E-03	1.55E-04	2.65E-05	3.6	N	0%	100%
VOC	1,1-Dichloroethane	03	51	5.00E-04	1.41E-04	2.60E-05	3.6	N	0%	100%
VOC	1,1-Dichloroethane	04	48	6.00E-03	2.13E-04	2.85E-05	3.6	N	0%	100%
VOC	1,1-Dichloroethane	05	73	6.00E-04	1.65E-04	2.50E-05	3.6	N	0%	100%
VOC	1,1-Dichloroethane	06	90	8.50E-04	1.64E-04	2.80E-05	3.6	N	0%	100%
VOC	1,1-Dichloroethane	07	30	4.25E-05	3.36E-05	2.75E-05	3.6	N	0%	100%
VOC	1,1-Dichloroethane	08	82	6.50E-04	8.59E-05	2.70E-05	3.6	N	0%	100%
VOC	1,1-Dichloroethane	09	119	6.00E-04	1.64E-04	2.75E-05	3.6	N	0%	100%
VOC	1,1-Dichloroethane	10	130	6.00E-04	1.99E-04	2.75E-05	3.6	N	0%	100%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	1,1-Dichloroethane	11	148	6.50E-01	1.42E-02	2.45E-05	3.6	N	0%	98%
VOC	1,1-Dichloroethane	12	67	1.65E-02	8.12E-04	2.55E-05	3.6	N	0%	100%
VOC	1,1-Dichloroethene	01	197	1.90E+00	3.65E-02	4.45E-05	23	N	0%	100%
VOC	1,1-Dichloroethene	02	183	7.80E-03	2.65E-04	4.25E-05	23	N	0%	97%
VOC	1,1-Dichloroethene	03	51	6.00E-04	1.59E-04	4.15E-05	23	N	0%	100%
VOC	1,1-Dichloroethene	04	48	6.00E-03	2.30E-04	4.50E-05	23	N	0%	100%
VOC	1,1-Dichloroethene	05	77	6.00E-04	1.67E-04	3.95E-05	23	N	0%	100%
VOC	1,1-Dichloroethene	06	90	8.50E-04	1.80E-04	4.45E-05	23	N	0%	100%
VOC	1,1-Dichloroethene	07	30	7.00E-05	5.33E-05	4.40E-05	23	N	0%	100%
VOC	1,1-Dichloroethene	08	82	6.50E-04	1.03E-04	4.30E-05	23	N	0%	99%
VOC	1,1-Dichloroethene	09	119	6.00E-04	1.77E-04	4.35E-05	23	N	0%	100%
VOC	1,1-Dichloroethene	10	130	6.00E-04	2.21E-04	4.35E-05	23	N	0%	100%
VOC	1,1-Dichloroethene	11	148	1.30E+00	2.60E-02	3.90E-05	23	N	0%	100%
VOC	1,1-Dichloroethene	12	67	2.00E-02	9.45E-04	4.10E-05	23	N	0%	100%
VOC	1,1-Dichloropropene	01	197	9.50E-01	1.98E-02	1.70E-05	1.8	N	0%	100%
VOC	1,1-Dichloropropene	02	183	1.70E-03	1.46E-04	1.60E-05	1.8	N	0%	100%
VOC	1,1-Dichloropropene	03	51	4.75E-04	1.27E-04	1.60E-05	1.8	N	0%	100%
VOC	1,1-Dichloropropene	04	48	6.00E-03	2.01E-04	1.70E-05	1.8	N	0%	100%
VOC	1,1-Dichloropropene	05	77	6.00E-04	1.41E-04	1.50E-05	1.8	N	0%	100%
VOC	1,1-Dichloropropene	06	90	8.50E-04	1.55E-04	1.70E-05	1.8	N	0%	100%
VOC	1,1-Dichloropropene	07	30	2.60E-05	2.02E-05	1.65E-05	1.8	N	0%	100%
VOC	1,1-Dichloropropene	08	82	6.50E-04	7.49E-05	1.65E-05	1.8	N	0%	100%
VOC	1,1-Dichloropropene	09	118	6.00E-04	1.55E-04	1.65E-05	1.8	N	0%	100%
VOC	1,1-Dichloropropene	10	130	6.00E-04	1.94E-04	1.65E-05	1.8	N	0%	100%
VOC	1,1-Dichloropropene	11	148	6.50E-01	1.53E-02	1.50E-05	1.8	N	0%	98%
VOC	1,1-Dichloropropene	12	67	1.60E-02	7.86E-04	1.55E-05	1.8	N	0%	100%
VOC	1,2,3-Trichlorobenzene	01	197	1.90E+00	3.56E-02	3.25E-05	6.3	N	0%	100%
VOC	1,2,3-Trichlorobenzene	02	183	3.00E-03	2.38E-04	3.10E-05	6.3	N	0%	99%
VOC	1,2,3-Trichlorobenzene	03	51	1.00E-03	1.66E-04	3.05E-05	6.3	N	0%	100%
VOC	1,2,3-Trichlorobenzene	04	48	6.00E-03	2.18E-04	3.30E-05	6.3	N	0%	100%
VOC	1,2,3-Trichlorobenzene	05	77	6.00E-04	1.61E-04	2.90E-05	6.3	N	0%	100%
VOC	1,2,3-Trichlorobenzene	06	90	8.50E-04	1.87E-04	3.25E-05	6.3	N	0%	100%
VOC	1,2,3-Trichlorobenzene	07	30	4.95E-05	3.90E-05	3.20E-05	6.3	N	0%	100%
VOC	1,2,3-Trichlorobenzene	08	82	6.50E-04	9.04E-05	3.15E-05	6.3	N	0%	100%
VOC	1,2,3-Trichlorobenzene	09	118	6.00E-04	1.68E-04	3.15E-05	6.3	N	0%	100%
VOC	1,2,3-Trichlorobenzene	10	130	6.00E-04	2.75E-04	3.20E-05	6.3	N	0%	100%
VOC	1,2,3-Trichlorobenzene	11	148	1.30E+00	2.44E-02	2.85E-05	6.3	N	0%	100%
VOC	1,2,3-Trichlorobenzene	12	67	2.40E-02	1.09E-03	3.00E-05	6.3	N	0%	100%
VOC	1,2,3-Trichloropropane	01	197	1.90E+00	3.50E-02	5.50E-05	0.0051	Y	11%	97%
VOC	1,2,3-Trichloropropane	02	183	1.50E-03	2.64E-04	5.00E-05	0.0051	N	0%	99%
VOC	1,2,3-Trichloropropane	03	51	1.00E-03	1.85E-04	5.00E-05	0.0051	N	0%	100%
VOC	1,2,3-Trichloropropane	04	48	6.00E-03	2.41E-04	5.50E-05	0.0051	Y	5%	100%
VOC	1,2,3-Trichloropropane	05	73	6.00E-04	1.93E-04	4.85E-05	0.0051	N	0%	100%
VOC	1,2,3-Trichloropropane	06	90	8.50E-04	2.07E-04	5.50E-05	0.0051	N	0%	100%
VOC	1,2,3-Trichloropropane	07	30	8.50E-05	6.58E-05	5.50E-05	0.0051	N	0%	100%
VOC	1,2,3-Trichloropropane	08	81	6.50E-04	1.13E-04	5.50E-05	0.0051	N	0%	100%
VOC	1,2,3-Trichloropropane	09	119	6.00E-04	1.85E-04	5.50E-05	0.0051	N	0%	100%
VOC	1,2,3-Trichloropropane	10	130	9.50E-04	2.99E-04	5.50E-05	0.0051	N	0%	100%
VOC	1,2,3-Trichloropropane	11	148	1.30E+00	2.50E-02	4.85E-05	0.0051	Y	9%	100%
VOC	1,2,3-Trichloropropane	12	67	2.00E-02	9.65E-04	5.00E-05	0.0051	Y	3%	100%
VOC	1,2,4-Trichlorobenzene	01	400	7.50E+00	1.27E-01	4.00E-05	5.8	Y	3%	100%
VOC	1,2,4-Trichlorobenzene	02	363	3.25E+00	9.87E-02	3.85E-05	5.8	N	0%	99%
VOC	1,2,4-Trichlorobenzene	03	101	1.30E-01	3.64E-02	3.80E-05	5.8	N	0%	100%
VOC	1,2,4-Trichlorobenzene	04	107	1.40E+00	1.47E-01	4.10E-05	5.8	N	0%	100%
VOC	1,2,4-Trichlorobenzene	05	158	1.30E-01	4.02E-02	3.55E-05	5.8	N	0%	100%
VOC	1,2,4-Trichlorobenzene	06	186	6.00E-01	3.92E-02	4.05E-05	5.8	N	0%	100%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	1,2,4-Trichlorobenzene	07	61	7.00E-02	1.46E-02	4.00E-05	5.8	N	0%	100%
VOC	1,2,4-Trichlorobenzene	08	164	6.50E-01	3.23E-02	3.90E-05	5.8	N	0%	100%
VOC	1,2,4-Trichlorobenzene	09	215	7.00E-01	4.70E-02	3.95E-05	5.8	N	0%	100%
VOC	1,2,4-Trichlorobenzene	10	261	3.90E-01	3.75E-02	3.95E-05	5.8	N	0%	100%
VOC	1,2,4-Trichlorobenzene	11	308	2.15E+01	1.56E-01	3.55E-05	5.8	Y	2%	100%
VOC	1,2,4-Trichlorobenzene	12	142	2.55E-01	2.50E-02	3.70E-05	5.8	N	0%	100%
VOC	1,2,4-Trimethylbenzene	01	197	3.20E+02	6.88E+00	2.40E-05	5.8	Y	8%	84%
VOC	1,2,4-Trimethylbenzene	02	182	9.60E-01	1.36E-02	2.30E-05	5.8	N	0%	91%
VOC	1,2,4-Trimethylbenzene	03	51	8.00E-04	1.81E-04	2.30E-05	5.8	N	0%	97%
VOC	1,2,4-Trimethylbenzene	04	48	6.00E-03	2.17E-04	2.45E-05	5.8	N	0%	95%
VOC	1,2,4-Trimethylbenzene	05	77	2.70E-03	3.03E-04	2.40E-05	5.8	N	0%	95%
VOC	1,2,4-Trimethylbenzene	06	90	1.70E-03	2.41E-04	2.45E-05	5.8	N	0%	90%
VOC	1,2,4-Trimethylbenzene	07	30	3.70E-05	2.91E-05	2.40E-05	5.8	N	0%	100%
VOC	1,2,4-Trimethylbenzene	08	81	7.00E-04	1.24E-04	2.35E-05	5.8	N	0%	93%
VOC	1,2,4-Trimethylbenzene	09	117	6.00E-04	1.63E-04	2.35E-05	5.8	N	0%	98%
VOC	1,2,4-Trimethylbenzene	10	130	6.00E-04	2.47E-04	2.40E-05	5.8	N	0%	97%
VOC	1,2,4-Trimethylbenzene	11	148	2.50E+02	5.78E+00	2.15E-05	5.8	Y	7%	91%
VOC	1,2,4-Trimethylbenzene	12	67	1.35E-02	7.16E-04	2.25E-05	5.8	N	0%	100%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	01	197	1.90E+00	4.73E-02	2.65E-04	0.0053	Y	11%	100%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	02	183	8.00E-03	5.89E-04	2.55E-04	0.0053	Y	1%	100%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	03	51	1.55E-03	4.83E-04	2.50E-04	0.0053	N	0%	100%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	04	48	1.20E-02	6.47E-04	2.70E-04	0.0053	Y	5%	100%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	05	77	1.60E-03	5.22E-04	2.35E-04	0.0053	N	0%	97%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	06	90	1.70E-03	5.12E-04	2.65E-04	0.0053	N	0%	100%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	07	30	4.05E-04	3.19E-04	2.65E-04	0.0053	N	0%	100%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	08	82	1.30E-03	3.79E-04	2.60E-04	0.0053	N	0%	100%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	09	111	1.20E-03	4.99E-04	2.60E-04	0.0053	N	0%	100%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	10	130	1.20E-03	5.78E-04	2.60E-04	0.0053	N	0%	100%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	11	148	1.45E+00	4.30E-02	2.35E-04	0.0053	Y	11%	97%
VOC	1,2-Dibromo-3-chloropropane (DBCP)	12	67	2.45E-02	1.46E-03	2.45E-04	0.0053	Y	3%	100%
VOC	1,2-Dibromoethane (EDB)	01	197	9.50E-01	1.96E-02	3.55E-05	0.036	Y	7%	100%
VOC	1,2-Dibromoethane (EDB)	02	183	1.55E-03	1.82E-04	3.40E-05	0.036	N	0%	100%
VOC	1,2-Dibromoethane (EDB)	03	51	8.00E-04	1.60E-04	3.35E-05	0.036	N	0%	100%
VOC	1,2-Dibromoethane (EDB)	04	48	6.00E-03	2.21E-04	3.65E-05	0.036	N	0%	100%
VOC	1,2-Dibromoethane (EDB)	05	77	6.00E-04	1.62E-04	3.15E-05	0.036	N	0%	100%
VOC	1,2-Dibromoethane (EDB)	06	90	8.50E-04	1.74E-04	3.60E-05	0.036	N	0%	100%
VOC	1,2-Dibromoethane (EDB)	07	30	5.50E-05	4.29E-05	3.55E-05	0.036	N	0%	100%
VOC	1,2-Dibromoethane (EDB)	08	82	6.50E-04	9.36E-05	3.45E-05	0.036	N	0%	100%
VOC	1,2-Dibromoethane (EDB)	09	111	6.00E-04	1.80E-04	3.50E-05	0.036	N	0%	100%
VOC	1,2-Dibromoethane (EDB)	10	130	6.00E-04	2.22E-04	3.50E-05	0.036	N	0%	100%
VOC	1,2-Dibromoethane (EDB)	11	148	6.50E-01	1.49E-02	3.15E-05	0.036	Y	7%	98%
VOC	1,2-Dibromoethane (EDB)	12	67	1.65E-02	8.26E-04	3.30E-05	0.036	N	0%	100%
VOC	1,2-Dichloroethane	01	197	9.50E-01	1.92E-02	5.00E-05	0.46	Y	1%	100%
VOC	1,2-Dichloroethane	02	183	1.30E-03	1.85E-04	4.80E-05	0.46	N	0%	100%
VOC	1,2-Dichloroethane	03	51	8.00E-04	1.73E-04	4.70E-05	0.46	N	0%	100%
VOC	1,2-Dichloroethane	04	48	6.00E-03	2.37E-04	5.00E-05	0.46	N	0%	100%
VOC	1,2-Dichloroethane	05	77	6.00E-04	1.74E-04	4.45E-05	0.46	N	0%	100%
VOC	1,2-Dichloroethane	06	90	8.50E-04	1.85E-04	5.00E-05	0.46	N	0%	100%
VOC	1,2-Dichloroethane	07	30	7.50E-05	6.00E-05	4.95E-05	0.46	N	0%	100%
VOC	1,2-Dichloroethane	08	82	6.50E-04	1.08E-04	4.85E-05	0.46	N	0%	100%
VOC	1,2-Dichloroethane	09	119	6.00E-04	1.82E-04	4.90E-05	0.46	N	0%	100%
VOC	1,2-Dichloroethane	10	130	6.00E-04	2.27E-04	4.90E-05	0.46	N	0%	100%
VOC	1,2-Dichloroethane	11	148	6.50E-01	1.43E-02	4.45E-05	0.46	Y	2%	98%
VOC	1,2-Dichloroethane	12	67	1.70E-02	8.51E-04	4.60E-05	0.46	N	0%	100%
VOC	1,2-Dichloropropane	01	197	9.50E-01	2.01E-02	3.05E-05	1	N	0%	100%
VOC	1,2-Dichloropropane	02	181	1.85E-03	1.62E-04	2.95E-05	1	N	0%	98%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	1,2-Dichloropropane	03	51	8.00E-04	1.56E-04	2.90E-05	1	N	0%	100%
VOC	1,2-Dichloropropane	04	48	6.00E-03	2.16E-04	3.15E-05	1	N	0%	100%
VOC	1,2-Dichloropropane	05	73	6.00E-04	1.72E-04	2.75E-05	1	N	0%	100%
VOC	1,2-Dichloropropane	06	90	8.50E-04	1.65E-04	3.10E-05	1	N	0%	100%
VOC	1,2-Dichloropropane	07	30	4.70E-05	3.70E-05	3.05E-05	1	N	0%	100%
VOC	1,2-Dichloropropane	08	82	6.50E-04	8.87E-05	3.00E-05	1	N	0%	100%
VOC	1,2-Dichloropropane	09	111	6.00E-04	1.76E-04	3.00E-05	1	N	0%	100%
VOC	1,2-Dichloropropane	10	130	6.00E-04	2.02E-04	3.05E-05	1	N	0%	100%
VOC	1,2-Dichloropropane	11	147	6.50E-01	1.58E-02	2.70E-05	1	N	0%	100%
VOC	1,2-Dichloropropane	12	67	1.45E-02	7.55E-04	2.85E-05	1	N	0%	100%
VOC	1,2-Dimethylbenzene (o-Xylene)	01	111	4.70E+01	1.01E+00	1.95E-04	65	N	0%	88%
VOC	1,2-Dimethylbenzene (o-Xylene)	02	50	6.50E-04	4.52E-04	2.10E-04	65	N	0%	100%
VOC	1,2-Dimethylbenzene (o-Xylene)	03	14	5.00E-04	4.48E-04	4.10E-04	65	N	0%	100%
VOC	1,2-Dimethylbenzene (o-Xylene)	04	8	6.00E-03	1.84E-03	4.55E-04	65	N	0%	100%
VOC	1,2-Dimethylbenzene (o-Xylene)	05	33	6.00E-04	4.73E-04	2.20E-04	65	N	0%	100%
VOC	1,2-Dimethylbenzene (o-Xylene)	06	38	8.50E-04	4.82E-04	2.30E-04	65	N	0%	100%
VOC	1,2-Dimethylbenzene (o-Xylene)	08	9	6.50E-04	4.85E-04	4.35E-04	65	N	0%	100%
VOC	1,2-Dimethylbenzene (o-Xylene)	09	36	6.00E-04	4.75E-04	4.15E-04	65	N	0%	100%
VOC	1,2-Dimethylbenzene (o-Xylene)	10	57	6.00E-04	4.24E-04	2.05E-04	65	N	0%	100%
VOC	1,2-Dimethylbenzene (o-Xylene)	11	21	1.40E+01	1.40E+00	2.30E-04	65	N	0%	75%
VOC	1,2-Dimethylbenzene (o-Xylene)	12	28	1.15E-02	1.13E-03	2.40E-04	65	N	0%	100%
VOC	1,3,5-Trimethylbenzene (mesitylene)	01	197	1.10E+02	2.37E+00	2.65E-05	78	Y	1%	89%
VOC	1,3,5-Trimethylbenzene (mesitylene)	02	183	2.70E-01	3.94E-03	2.55E-05	78	N	0%	92%
VOC	1,3,5-Trimethylbenzene (mesitylene)	03	51	6.50E-04	1.47E-04	2.50E-05	78	N	0%	99%
VOC	1,3,5-Trimethylbenzene (mesitylene)	04	48	6.00E-03	2.14E-04	2.70E-05	78	N	0%	95%
VOC	1,3,5-Trimethylbenzene (mesitylene)	05	77	1.30E-03	1.97E-04	2.35E-05	78	N	0%	95%
VOC	1,3,5-Trimethylbenzene (mesitylene)	06	90	8.50E-04	1.74E-04	2.70E-05	78	N	0%	100%
VOC	1,3,5-Trimethylbenzene (mesitylene)	07	30	4.10E-05	3.21E-05	2.65E-05	78	N	0%	100%
VOC	1,3,5-Trimethylbenzene (mesitylene)	08	82	6.50E-04	8.89E-05	2.60E-05	78	N	0%	100%
VOC	1,3,5-Trimethylbenzene (mesitylene)	09	117	6.00E-04	1.63E-04	2.60E-05	78	N	0%	100%
VOC	1,3,5-Trimethylbenzene (mesitylene)	10	130	6.00E-04	2.30E-04	2.60E-05	78	N	0%	97%
VOC	1,3,5-Trimethylbenzene (mesitylene)	11	148	7.70E+01	1.61E+00	2.35E-05	78	N	0%	90%
VOC	1,3,5-Trimethylbenzene (mesitylene)	12	67	1.25E-02	6.78E-04	2.45E-05	78	N	0%	100%
VOC	1,3-Dichloropropane	01	197	9.50E-01	1.94E-02	2.90E-05	160	N	0%	100%
VOC	1,3-Dichloropropane	02	183	1.45E-03	1.74E-04	2.80E-05	160	N	0%	100%
VOC	1,3-Dichloropropane	03	51	6.50E-04	1.48E-04	2.75E-05	160	N	0%	100%
VOC	1,3-Dichloropropane	04	48	6.00E-03	2.14E-04	2.95E-05	160	N	0%	100%
VOC	1,3-Dichloropropane	05	73	6.00E-04	1.68E-04	2.60E-05	160	N	0%	100%
VOC	1,3-Dichloropropane	06	90	8.50E-04	1.71E-04	2.95E-05	160	N	0%	97%
VOC	1,3-Dichloropropane	07	30	4.45E-05	3.51E-05	2.90E-05	160	N	0%	100%
VOC	1,3-Dichloropropane	08	82	6.50E-04	8.71E-05	2.85E-05	160	N	0%	100%
VOC	1,3-Dichloropropane	09	119	6.00E-04	1.65E-04	2.85E-05	160	N	0%	100%
VOC	1,3-Dichloropropane	10	130	6.00E-04	2.19E-04	2.85E-05	160	N	0%	100%
VOC	1,3-Dichloropropane	11	148	6.50E-01	1.46E-02	2.80E-05	160	N	0%	97%
VOC	1,3-Dichloropropane	12	67	1.50E-02	7.68E-04	2.70E-05	160	N	0%	97%
VOC	2-Butanone (MEK)	06	3	8.50E-04	8.50E-04	8.50E-04	2700	N	0%	100%
VOC	2-Butanone (MEK)	10	12	2.90E-03	1.02E-03	8.50E-04	2700	N	0%	92%
VOC	2-Butanone (MEK)	11	4	8.50E-04	8.50E-04	8.50E-04	2700	N	0%	100%
VOC	2-Chlorotoluene	01	197	1.90E+00	3.56E-02	1.95E-05	160	N	0%	100%
VOC	2-Chlorotoluene	02	183	1.35E-03	1.80E-04	1.85E-05	160	N	0%	100%
VOC	2-Chlorotoluene	03	51	9.00E-04	1.51E-04	1.80E-05	160	N	0%	100%
VOC	2-Chlorotoluene	04	48	6.00E-03	2.04E-04	1.95E-05	160	N	0%	100%
VOC	2-Chlorotoluene	05	73	6.00E-04	1.63E-04	1.70E-05	160	N	0%	100%
VOC	2-Chlorotoluene	06	90	8.50E-04	1.68E-04	1.95E-05	160	N	0%	100%
VOC	2-Chlorotoluene	07	30	2.95E-05	2.32E-05	1.90E-05	160	N	0%	100%
VOC	2-Chlorotoluene	08	82	6.50E-04	7.74E-05	1.85E-05	160	N	0%	100%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	2-Chlorotoluene	09	117	6.00E-04	1.58E-04	1.90E-05	160	N	0%	100%
VOC	2-Chlorotoluene	10	130	6.00E-04	2.37E-04	1.90E-05	160	N	0%	100%
VOC	2-Chlorotoluene	11	148	1.30E+00	2.47E-02	1.70E-05	160	N	0%	98%
VOC	2-Chlorotoluene	12	67	1.30E-02	7.00E-04	1.80E-05	160	N	0%	100%
VOC	2-Hexanone	06	3	1.50E-03	1.50E-03	1.50E-03	20	N	0%	100%
VOC	2-Hexanone	10	12	1.50E-03	1.50E-03	1.50E-03	20	N	0%	100%
VOC	2-Hexanone	11	4	1.50E-03	1.50E-03	1.50E-03	20	N	0%	100%
VOC	4-Chlorotoluene	01	197	1.20E+00	3.89E-02	3.05E-05	160	N	0%	97%
VOC	4-Chlorotoluene	02	183	2.00E-03	1.90E-04	2.95E-05	160	N	0%	100%
VOC	4-Chlorotoluene	03	51	7.50E-04	1.54E-04	2.90E-05	160	N	0%	100%
VOC	4-Chlorotoluene	04	48	6.00E-03	2.16E-04	3.15E-05	160	N	0%	100%
VOC	4-Chlorotoluene	05	73	6.00E-04	1.71E-04	2.75E-05	160	N	0%	100%
VOC	4-Chlorotoluene	06	90	8.50E-04	1.77E-04	3.10E-05	160	N	0%	100%
VOC	4-Chlorotoluene	07	30	4.70E-05	3.70E-05	3.05E-05	160	N	0%	100%
VOC	4-Chlorotoluene	08	82	6.50E-04	8.87E-05	3.00E-05	160	N	0%	100%
VOC	4-Chlorotoluene	09	118	6.00E-04	1.67E-04	3.00E-05	160	N	0%	100%
VOC	4-Chlorotoluene	10	130	6.00E-04	2.41E-04	3.05E-05	160	N	0%	100%
VOC	4-Chlorotoluene	11	148	6.50E-01	1.62E-02	2.70E-05	160	N	0%	100%
VOC	4-Chlorotoluene	12	67	1.30E-02	7.01E-04	2.85E-05	160	N	0%	100%
VOC	4-Methyl-2-Pentanone (MIBK)	06	3	1.10E-03	1.10E-03	1.10E-03	3300	N	0%	100%
VOC	4-Methyl-2-Pentanone (MIBK)	10	12	1.10E-03	1.10E-03	1.10E-03	3300	N	0%	100%
VOC	4-Methyl-2-Pentanone (MIBK)	11	4	1.10E-03	1.10E-03	1.10E-03	3300	N	0%	100%
VOC	Acetone	06	3	2.10E-03	2.10E-03	2.10E-03	6100	N	0%	100%
VOC	Acetone	10	12	1.10E-02	3.44E-03	2.10E-03	6100	N	0%	92%
VOC	Acetone	11	4	2.10E-03	2.10E-03	2.10E-03	6100	N	0%	100%
VOC	Benzene	01	197	9.50E-01	2.93E-02	2.35E-05	1.2	N	0%	94%
VOC	Benzene	02	183	3.30E-03	1.92E-04	2.25E-05	1.2	N	0%	95%
VOC	Benzene	03	51	5.00E-04	1.47E-04	2.20E-05	1.2	N	0%	88%
VOC	Benzene	04	48	6.00E-03	2.14E-04	2.40E-05	1.2	N	0%	95%
VOC	Benzene	05	73	4.10E-03	3.04E-04	2.05E-05	1.2	N	0%	94%
VOC	Benzene	06	90	1.40E-03	2.07E-04	2.35E-05	1.2	N	0%	96%
VOC	Benzene	07	30	3.60E-05	2.81E-05	2.30E-05	1.2	N	0%	100%
VOC	Benzene	08	82	2.20E-03	1.70E-04	2.25E-05	1.2	N	0%	94%
VOC	Benzene	09	119	9.20E-04	1.73E-04	2.30E-05	1.2	N	0%	95%
VOC	Benzene	10	130	2.60E-03	2.77E-04	2.30E-05	1.2	N	0%	94%
VOC	Benzene	11	148	6.50E-01	1.42E-02	2.05E-05	1.2	N	0%	100%
VOC	Benzene	12	67	1.40E-02	7.23E-04	2.15E-05	1.2	N	0%	100%
VOC	Bromobenzene	01	197	2.80E+01	4.07E-01	4.70E-05	29	N	0%	99%
VOC	Bromobenzene	02	183	1.30E-03	1.99E-04	4.50E-05	29	N	0%	100%
VOC	Bromobenzene	03	51	8.50E-04	1.73E-04	4.45E-05	29	N	0%	100%
VOC	Bromobenzene	04	48	6.00E-03	2.34E-04	4.80E-05	29	N	0%	100%
VOC	Bromobenzene	05	73	6.00E-04	1.85E-04	4.20E-05	29	N	0%	100%
VOC	Bromobenzene	06	90	8.50E-04	1.90E-04	4.75E-05	29	N	0%	100%
VOC	Bromobenzene	07	30	7.00E-05	5.66E-05	4.70E-05	29	N	0%	100%
VOC	Bromobenzene	08	82	6.50E-04	1.05E-04	4.60E-05	29	N	0%	100%
VOC	Bromobenzene	09	118	6.00E-04	1.80E-04	4.60E-05	29	N	0%	100%
VOC	Bromobenzene	10	130	6.00E-04	2.53E-04	4.65E-05	29	N	0%	100%
VOC	Bromobenzene	11	148	1.30E+00	2.44E-02	4.20E-05	29	N	0%	100%
VOC	Bromobenzene	12	67	1.40E-02	7.47E-04	4.35E-05	29	N	0%	100%
VOC	Bromochloromethane	01	197	1.90E+00	3.54E-02	9.00E-05	15	N	0%	100%
VOC	Bromochloromethane	02	183	4.15E-03	2.44E-04	8.50E-05	15	N	0%	100%
VOC	Bromochloromethane	03	51	9.00E-04	2.10E-04	8.50E-05	15	N	0%	100%
VOC	Bromochloromethane	04	48	6.00E-03	2.78E-04	9.00E-05	15	N	0%	100%
VOC	Bromochloromethane	05	77	6.00E-04	2.08E-04	8.00E-05	15	N	0%	100%
VOC	Bromochloromethane	06	90	8.50E-04	2.17E-04	9.00E-05	15	N	0%	100%
VOC	Bromochloromethane	07	30	1.35E-04	1.07E-04	9.00E-05	15	N	0%	100%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	Bromochloromethane	08	82	6.50E-04	1.46E-04	8.50E-05	15	N	0%	100%
VOC	Bromochloromethane	09	119	6.00E-04	2.12E-04	8.50E-05	15	N	0%	100%
VOC	Bromochloromethane	10	130	6.00E-04	2.51E-04	8.50E-05	15	N	0%	100%
VOC	Bromochloromethane	11	143	1.30E+00	2.13E-02	8.00E-05	15	N	0%	100%
VOC	Bromochloromethane	12	67	2.05E-02	9.95E-04	8.00E-05	15	N	0%	100%
VOC	Bromodichloromethane	01	197	9.50E-01	3.06E-02	1.00E-04	0.29	Y	3%	100%
VOC	Bromodichloromethane	02	183	8.00E-03	3.06E-04	1.00E-04	0.29	N	0%	100%
VOC	Bromodichloromethane	03	51	5.00E-04	2.04E-04	9.50E-05	0.29	N	0%	100%
VOC	Bromodichloromethane	04	48	6.00E-03	2.92E-04	1.05E-04	0.29	N	0%	100%
VOC	Bromodichloromethane	05	77	6.00E-04	2.15E-04	9.00E-05	0.29	N	0%	100%
VOC	Bromodichloromethane	06	90	8.50E-04	2.24E-04	7.50E-05	0.29	N	0%	100%
VOC	Bromodichloromethane	07	30	1.55E-04	1.23E-04	1.00E-04	0.29	N	0%	100%
VOC	Bromodichloromethane	08	82	6.50E-04	1.60E-04	1.00E-04	0.29	N	0%	100%
VOC	Bromodichloromethane	09	119	6.00E-04	2.23E-04	1.00E-04	0.29	N	0%	100%
VOC	Bromodichloromethane	10	130	6.00E-04	2.41E-04	7.50E-05	0.29	N	0%	100%
VOC	Bromodichloromethane	11	148	1.45E+00	3.24E-02	7.50E-05	0.29	Y	5%	100%
VOC	Bromodichloromethane	12	67	1.30E-02	7.29E-04	9.50E-05	0.29	N	0%	100%
VOC	Bromoform	01	197	1.90E+00	3.60E-02	8.50E-05	19	N	0%	100%
VOC	Bromoform	02	183	1.45E-03	3.20E-04	8.00E-05	19	N	0%	100%
VOC	Bromoform	03	51	9.50E-04	2.97E-04	8.00E-05	19	N	0%	100%
VOC	Bromoform	04	48	1.20E-02	4.57E-04	8.50E-05	19	N	0%	100%
VOC	Bromoform	05	77	1.20E-03	3.27E-04	7.50E-05	19	N	0%	100%
VOC	Bromoform	06	90	1.70E-03	3.49E-04	8.50E-05	19	N	0%	100%
VOC	Bromoform	07	30	1.30E-04	1.02E-04	8.50E-05	19	N	0%	100%
VOC	Bromoform	08	82	1.30E-03	2.05E-04	8.50E-05	19	N	0%	99%
VOC	Bromoform	09	111	1.20E-03	3.70E-04	8.50E-05	19	N	0%	100%
VOC	Bromoform	10	130	1.20E-03	4.08E-04	8.50E-05	19	N	0%	100%
VOC	Bromoform	11	148	1.30E+00	2.49E-02	7.50E-05	19	N	0%	100%
VOC	Bromoform	12	67	1.60E-02	1.05E-03	8.00E-05	19	N	0%	100%
VOC	Bromomethane	01	197	1.90E+00	6.24E-02	7.50E-05	0.68	Y	3%	100%
VOC	Bromomethane	02	183	1.70E-01	2.53E-03	7.00E-05	0.68	N	0%	100%
VOC	Bromomethane	03	51	9.50E-04	1.99E-04	7.00E-05	0.68	N	0%	100%
VOC	Bromomethane	04	48	6.00E-03	2.61E-04	7.50E-05	0.68	N	0%	100%
VOC	Bromomethane	05	77	6.00E-04	1.95E-04	6.50E-05	0.68	N	0%	100%
VOC	Bromomethane	06	90	9.50E-04	2.29E-04	7.50E-05	0.68	N	0%	100%
VOC	Bromomethane	07	30	1.10E-04	8.73E-05	7.00E-05	0.68	N	0%	100%
VOC	Bromomethane	08	82	6.50E-04	1.31E-04	7.00E-05	0.68	N	0%	100%
VOC	Bromomethane	09	107	6.00E-04	2.13E-04	7.00E-05	0.68	N	0%	100%
VOC	Bromomethane	10	130	1.60E-03	3.31E-04	7.00E-05	0.68	N	0%	99%
VOC	Bromomethane	11	144	1.30E+00	2.18E-02	6.50E-05	0.68	Y	2%	100%
VOC	Bromomethane	12	67	1.85E-02	9.18E-04	6.50E-05	0.68	N	0%	100%
VOC	Carbon disulfide	06	3	1.00E-03	1.00E-03	1.00E-03	77	N	0%	100%
VOC	Carbon disulfide	10	12	1.00E-03	1.00E-03	1.00E-03	77	N	0%	100%
VOC	Carbon disulfide	11	4	1.00E-03	1.00E-03	1.00E-03	77	N	0%	100%
VOC	Carbon tetrachloride	01	197	1.90E+00	3.06E-02	3.10E-05	0.65	Y	1%	100%
VOC	Carbon tetrachloride	02	183	1.30E-03	1.76E-04	3.00E-05	0.65	N	0%	100%
VOC	Carbon tetrachloride	03	51	5.00E-04	1.44E-04	2.95E-05	0.65	N	0%	100%
VOC	Carbon tetrachloride	04	48	6.00E-03	2.17E-04	3.15E-05	0.65	N	0%	100%
VOC	Carbon tetrachloride	05	76	6.00E-04	1.54E-04	2.75E-05	0.65	N	0%	100%
VOC	Carbon tetrachloride	06	90	8.50E-04	1.71E-04	3.15E-05	0.65	N	0%	99%
VOC	Carbon tetrachloride	07	30	4.80E-05	3.75E-05	3.10E-05	0.65	N	0%	100%
VOC	Carbon tetrachloride	08	82	6.50E-04	8.92E-05	3.05E-05	0.65	N	0%	100%
VOC	Carbon tetrachloride	09	118	6.00E-04	1.67E-04	3.05E-05	0.65	N	0%	100%
VOC	Carbon tetrachloride	10	130	6.00E-04	2.17E-04	3.05E-05	0.65	N	0%	100%
VOC	Carbon tetrachloride	11	148	1.30E+00	2.44E-02	2.75E-05	0.65	Y	2%	100%
VOC	Carbon tetrachloride	12	67	1.15E-02	6.41E-04	2.85E-05	0.65	N	0%	100%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	Chlorobenzene	01	197	9.50E-01	1.91E-02	3.05E-05	28	N	0%	99%
VOC	Chlorobenzene	02	183	1.30E-03	1.77E-04	2.90E-05	28	N	0%	99%
VOC	Chlorobenzene	03	51	5.50E-04	1.45E-04	2.85E-05	28	N	0%	100%
VOC	Chlorobenzene	04	48	6.00E-03	2.16E-04	3.10E-05	28	N	0%	100%
VOC	Chlorobenzene	05	77	6.00E-04	1.54E-04	2.70E-05	28	N	0%	100%
VOC	Chlorobenzene	06	90	8.50E-04	1.70E-04	3.05E-05	28	N	0%	100%
VOC	Chlorobenzene	07	30	4.65E-05	3.65E-05	3.00E-05	28	N	0%	100%
VOC	Chlorobenzene	08	82	6.50E-04	8.83E-05	2.95E-05	28	N	0%	100%
VOC	Chlorobenzene	09	118	6.00E-04	1.66E-04	2.95E-05	28	N	0%	100%
VOC	Chlorobenzene	10	130	6.00E-04	2.17E-04	3.00E-05	28	N	0%	100%
VOC	Chlorobenzene	11	148	6.50E-01	1.42E-02	2.70E-05	28	N	0%	100%
VOC	Chlorobenzene	12	67	1.25E-02	6.76E-04	2.80E-05	28	N	0%	100%
VOC	Chloroethane	01	197	1.90E+00	3.41E-02	1.45E-04	1400	N	0%	100%
VOC	Chloroethane	02	179	3.20E-03	4.10E-04	1.40E-04	1400	N	0%	100%
VOC	Chloroethane	03	51	1.55E-03	3.79E-04	1.35E-04	1400	N	0%	100%
VOC	Chloroethane	04	48	1.20E-02	5.19E-04	1.45E-04	1400	N	0%	100%
VOC	Chloroethane	05	77	1.20E-03	3.85E-04	1.25E-04	1400	N	0%	100%
VOC	Chloroethane	06	90	1.70E-03	4.02E-04	1.45E-04	1400	N	0%	100%
VOC	Chloroethane	07	30	2.20E-04	1.73E-04	1.45E-04	1400	N	0%	100%
VOC	Chloroethane	08	82	1.30E-03	2.58E-04	1.40E-04	1400	N	0%	100%
VOC	Chloroethane	09	119	1.20E-03	3.97E-04	1.40E-04	1400	N	0%	100%
VOC	Chloroethane	10	129	2.60E-03	4.84E-04	1.40E-04	1400	N	0%	99%
VOC	Chloroethane	11	143	1.30E+00	2.14E-02	1.25E-04	1400	N	0%	100%
VOC	Chloroethane	12	67	1.85E-02	1.19E-03	1.30E-04	1400	N	0%	100%
VOC	Chloroform	01	197	9.50E-01	2.16E-02	5.00E-05	0.32	Y	1%	100%
VOC	Chloroform	02	183	2.80E-03	1.96E-04	5.00E-05	0.32	N	0%	100%
VOC	Chloroform	03	51	5.00E-04	1.61E-04	4.95E-05	0.32	N	0%	100%
VOC	Chloroform	04	48	6.00E-03	2.39E-04	5.50E-05	0.32	N	0%	100%
VOC	Chloroform	05	77	9.70E-04	2.02E-04	4.65E-05	0.32	N	0%	95%
VOC	Chloroform	06	90	8.50E-04	1.83E-04	5.50E-05	0.32	N	0%	100%
VOC	Chloroform	07	30	8.00E-05	6.30E-05	5.00E-05	0.32	N	0%	100%
VOC	Chloroform	08	82	6.50E-04	1.10E-04	5.00E-05	0.32	N	0%	100%
VOC	Chloroform	09	119	6.00E-04	1.84E-04	5.00E-05	0.32	N	0%	100%
VOC	Chloroform	10	130	6.00E-04	2.14E-04	5.00E-05	0.32	N	0%	100%
VOC	Chloroform	11	148	6.50E-01	1.82E-02	4.65E-05	0.32	Y	5%	100%
VOC	Chloroform	12	67	1.80E-02	8.76E-04	4.85E-05	0.32	N	0%	100%
VOC	Chloromethane	01	197	1.90E+00	4.07E-02	3.70E-04	11	N	0%	100%
VOC	Chloromethane	02	183	4.20E-03	6.56E-04	2.10E-04	11	N	0%	100%
VOC	Chloromethane	03	51	1.00E-03	6.05E-04	4.10E-04	11	N	0%	100%
VOC	Chloromethane	04	48	6.00E-03	7.73E-04	4.55E-04	11	N	0%	100%
VOC	Chloromethane	05	77	8.00E-04	6.02E-04	4.20E-04	11	N	0%	100%
VOC	Chloromethane	06	90	1.15E-03	6.11E-04	4.20E-04	11	N	0%	100%
VOC	Chloromethane	07	30	8.50E-04	6.65E-04	5.50E-04	11	N	0%	100%
VOC	Chloromethane	08	82	8.50E-04	6.04E-04	4.35E-04	11	N	0%	100%
VOC	Chloromethane	09	119	8.00E-04	5.74E-04	4.15E-04	11	N	0%	100%
VOC	Chloromethane	10	130	1.80E-03	5.98E-04	4.05E-04	11	N	0%	99%
VOC	Chloromethane	11	148	1.30E+00	3.33E-02	4.35E-04	11	N	0%	99%
VOC	Chloromethane	12	67	2.05E-02	1.23E-03	3.90E-04	11	N	0%	100%
VOC	cis-1,2-Dichloroethene	01	197	9.50E-01	1.94E-02	3.95E-05	16	N	0%	100%
VOC	cis-1,2-Dichloroethene	02	183	1.45E-03	1.64E-04	3.75E-05	16	N	0%	100%
VOC	cis-1,2-Dichloroethene	03	51	8.50E-04	1.66E-04	3.70E-05	16	N	0%	100%
VOC	cis-1,2-Dichloroethene	04	48	6.00E-03	2.25E-04	4.00E-05	16	N	0%	100%
VOC	cis-1,2-Dichloroethene	05	77	6.00E-04	1.65E-04	3.50E-05	16	N	0%	100%
VOC	cis-1,2-Dichloroethene	06	90	8.50E-04	1.76E-04	3.95E-05	16	N	0%	100%
VOC	cis-1,2-Dichloroethene	07	30	6.00E-05	4.72E-05	3.90E-05	16	N	0%	100%
VOC	cis-1,2-Dichloroethene	08	82	6.50E-04	9.73E-05	3.85E-05	16	N	0%	100%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	cis-1,2-Dichloroethene	09	119	6.00E-04	1.73E-04	3.85E-05	16	N	0%	100%
VOC	cis-1,2-Dichloroethene	10	130	6.00E-04	2.18E-04	3.85E-05	16	N	0%	100%
VOC	cis-1,2-Dichloroethene	11	148	6.50E-01	1.46E-02	3.50E-05	16	N	0%	100%
VOC	cis-1,2-Dichloroethene	12	67	2.00E-02	9.50E-04	3.65E-05	16	N	0%	100%
VOC	Dibromochloromethane	01	197	9.50E-01	2.00E-02	3.25E-05	8.3	N	0%	100%
VOC	Dibromochloromethane	02	183	1.80E-03	1.77E-04	3.10E-05	8.3	N	0%	100%
VOC	Dibromochloromethane	03	51	7.00E-04	1.53E-04	3.05E-05	8.3	N	0%	100%
VOC	Dibromochloromethane	04	48	6.00E-03	2.18E-04	3.30E-05	8.3	N	0%	100%
VOC	Dibromochloromethane	05	77	6.00E-04	1.58E-04	2.90E-05	8.3	N	0%	100%
VOC	Dibromochloromethane	06	90	8.50E-04	1.72E-04	3.25E-05	8.3	N	0%	100%
VOC	Dibromochloromethane	07	30	4.95E-05	3.90E-05	3.20E-05	8.3	N	0%	100%
VOC	Dibromochloromethane	08	82	6.50E-04	9.04E-05	3.15E-05	8.3	N	0%	100%
VOC	Dibromochloromethane	09	119	6.00E-04	1.68E-04	3.15E-05	8.3	N	0%	100%
VOC	Dibromochloromethane	10	130	4.30E-03	2.73E-04	3.20E-05	8.3	N	0%	99%
VOC	Dibromochloromethane	11	148	6.50E-01	1.56E-02	2.85E-05	8.3	N	0%	100%
VOC	Dibromochloromethane	12	67	1.10E-02	6.32E-04	3.00E-05	8.3	N	0%	100%
VOC	Dibromomethane	01	197	9.50E-01	1.92E-02	7.00E-05	2.4	N	0%	100%
VOC	Dibromomethane	02	183	1.30E-03	2.03E-04	7.00E-05	2.4	N	0%	100%
VOC	Dibromomethane	03	51	9.00E-04	1.94E-04	6.50E-05	2.4	N	0%	100%
VOC	Dibromomethane	04	48	6.00E-03	2.59E-04	7.00E-05	2.4	N	0%	100%
VOC	Dibromomethane	05	77	6.00E-04	1.93E-04	6.50E-05	2.4	N	0%	100%
VOC	Dibromomethane	06	90	8.50E-04	2.02E-04	7.00E-05	2.4	N	0%	100%
VOC	Dibromomethane	07	30	1.10E-04	8.57E-05	7.00E-05	2.4	N	0%	100%
VOC	Dibromomethane	08	82	6.50E-04	1.29E-04	7.00E-05	2.4	N	0%	100%
VOC	Dibromomethane	09	119	6.00E-04	1.98E-04	7.00E-05	2.4	N	0%	100%
VOC	Dibromomethane	10	130	6.00E-04	2.42E-04	7.00E-05	2.4	N	0%	100%
VOC	Dibromomethane	11	145	6.50E-01	1.09E-02	6.50E-05	2.4	N	0%	100%
VOC	Dibromomethane	12	67	1.75E-02	8.83E-04	6.50E-05	2.4	N	0%	100%
VOC	Dichlorodifluoromethane(Freon 12)	01	197	1.90E+00	3.82E-02	3.10E-05	8.7	N	0%	100%
VOC	Dichlorodifluoromethane(Freon 12)	02	183	2.75E-03	2.98E-04	3.00E-05	8.7	N	0%	100%
VOC	Dichlorodifluoromethane(Freon 12)	03	51	1.55E-03	2.84E-04	2.95E-05	8.7	N	0%	100%
VOC	Dichlorodifluoromethane(Freon 12)	04	48	1.20E-02	4.26E-04	3.15E-05	8.7	N	0%	95%
VOC	Dichlorodifluoromethane(Freon 12)	05	77	1.20E-03	2.89E-04	2.75E-05	8.7	N	0%	100%
VOC	Dichlorodifluoromethane(Freon 12)	06	90	1.70E-03	3.07E-04	3.15E-05	8.7	N	0%	100%
VOC	Dichlorodifluoromethane(Freon 12)	07	30	4.70E-04	7.79E-05	3.10E-05	8.7	N	0%	87%
VOC	Dichlorodifluoromethane(Freon 12)	08	82	1.30E-03	1.48E-04	3.05E-05	8.7	N	0%	99%
VOC	Dichlorodifluoromethane(Freon 12)	09	119	1.20E-03	3.09E-04	3.05E-05	8.7	N	0%	100%
VOC	Dichlorodifluoromethane(Freon 12)	10	130	1.20E-03	3.92E-04	3.05E-05	8.7	N	0%	100%
VOC	Dichlorodifluoromethane(Freon 12)	11	145	1.30E+00	2.91E-02	2.75E-05	8.7	N	0%	100%
VOC	Dichlorodifluoromethane(Freon 12)	12	67	2.50E-02	1.35E-03	2.85E-05	8.7	N	0%	100%
VOC	Ethylbenzene	01	197	2.40E+01	6.05E-01	7.00E-05	5.8	Y	4%	89%
VOC	Ethylbenzene	02	183	1.40E-02	4.00E-04	7.00E-05	5.8	N	0%	93%
VOC	Ethylbenzene	03	51	5.00E-04	1.78E-04	6.50E-05	5.8	N	0%	100%
VOC	Ethylbenzene	04	48	6.00E-03	2.60E-04	7.50E-05	5.8	N	0%	100%
VOC	Ethylbenzene	05	77	1.20E-03	2.26E-04	6.50E-05	5.8	N	0%	97%
VOC	Ethylbenzene	06	90	8.50E-04	2.14E-04	7.00E-05	5.8	N	0%	97%
VOC	Ethylbenzene	07	30	2.40E-04	9.45E-05	7.00E-05	5.8	N	0%	93%
VOC	Ethylbenzene	08	82	6.50E-04	1.43E-04	7.00E-05	5.8	N	0%	96%
VOC	Ethylbenzene	09	118	1.30E-03	2.21E-04	7.00E-05	5.8	N	0%	92%
VOC	Ethylbenzene	10	130	6.00E-04	2.43E-04	7.00E-05	5.8	N	0%	99%
VOC	Ethylbenzene	11	148	1.00E+00	1.87E-02	6.50E-05	5.8	N	0%	96%
VOC	Ethylbenzene	12	67	1.10E-02	6.45E-04	6.50E-05	5.8	N	0%	100%
VOC	Isopropylbenzene (Cumene)	01	197	3.90E+00	1.41E-01	1.25E-05	190	N	0%	88%
VOC	Isopropylbenzene (Cumene)	02	183	2.40E-02	4.79E-04	1.20E-05	190	N	0%	95%
VOC	Isopropylbenzene (Cumene)	03	51	5.50E-04	1.30E-04	1.15E-05	190	N	0%	100%
VOC	Isopropylbenzene (Cumene)	04	48	6.00E-03	1.97E-04	1.25E-05	190	N	0%	100%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	Isopropylbenzene (Cumene)	05	77	6.00E-04	1.41E-04	1.10E-05	190	N	0%	97%
VOC	Isopropylbenzene (Cumene)	06	90	8.50E-04	1.60E-04	1.25E-05	190	N	0%	97%
VOC	Isopropylbenzene (Cumene)	07	30	1.90E-05	1.48E-05	1.20E-05	190	N	0%	100%
VOC	Isopropylbenzene (Cumene)	08	82	6.50E-04	7.05E-05	1.20E-05	190	N	0%	100%
VOC	Isopropylbenzene (Cumene)	09	117	6.00E-04	1.52E-04	1.20E-05	190	N	0%	100%
VOC	Isopropylbenzene (Cumene)	10	130	6.00E-04	2.14E-04	1.20E-05	190	N	0%	100%
VOC	Isopropylbenzene (Cumene)	11	148	3.40E+00	5.51E-02	1.10E-05	190	N	0%	94%
VOC	Isopropylbenzene (Cumene)	12	67	1.45E-02	7.36E-04	1.15E-05	190	N	0%	100%
VOC	Methylene chloride	01	197	9.50E+00	1.78E-01	1.40E-04	35	N	0%	94%
VOC	Methylene chloride	02	183	1.80E-02	1.25E-03	1.35E-04	35	N	0%	97%
VOC	Methylene chloride	03	51	6.50E-03	9.02E-04	1.30E-04	35	N	0%	100%
VOC	Methylene chloride	04	48	3.05E-02	1.16E-03	1.45E-04	35	N	0%	85%
VOC	Methylene chloride	05	77	3.00E-03	8.86E-04	1.25E-04	35	N	0%	93%
VOC	Methylene chloride	06	90	4.20E-03	9.60E-04	1.15E-04	35	N	0%	91%
VOC	Methylene chloride	07	30	2.15E-04	1.69E-04	1.40E-04	35	N	0%	100%
VOC	Methylene chloride	08	82	3.30E-03	4.32E-04	1.35E-04	35	N	0%	100%
VOC	Methylene chloride	09	119	2.95E-03	8.27E-04	1.35E-04	35	N	0%	99%
VOC	Methylene chloride	10	130	3.70E-03	1.24E-03	1.15E-04	35	N	0%	91%
VOC	Methylene chloride	11	148	6.50E+00	1.39E-01	1.15E-04	35	N	0%	83%
VOC	Methylene chloride	12	67	1.80E-01	7.63E-03	1.45E-04	35	N	0%	93%
VOC	Naphthalene	01	197	4.70E+01	1.65E+00	2.35E-05	3.8	Y	8%	85%
VOC	Naphthalene	02	179	9.80E-01	1.40E-02	2.25E-05	3.8	N	0%	93%
VOC	Naphthalene	03	51	1.10E-03	2.71E-04	2.20E-05	3.8	N	0%	96%
VOC	Naphthalene	04	48	1.20E-02	4.00E-04	2.40E-05	3.8	N	0%	100%
VOC	Naphthalene	05	77	4.20E-03	4.46E-04	2.05E-05	3.8	N	0%	95%
VOC	Naphthalene	06	90	1.70E-03	3.38E-04	2.35E-05	3.8	N	0%	97%
VOC	Naphthalene	07	30	1.10E-03	1.63E-04	2.30E-05	3.8	N	0%	100%
VOC	Naphthalene	08	82	1.30E-03	2.82E-04	2.25E-05	3.8	N	0%	96%
VOC	Naphthalene	09	93	2.10E-03	5.48E-04	2.30E-05	3.8	N	0%	97%
VOC	Naphthalene	10	130	1.20E-03	4.66E-04	2.30E-05	3.8	N	0%	96%
VOC	Naphthalene	11	148	4.20E+00	5.85E-02	2.05E-05	3.8	Y	2%	93%
VOC	Naphthalene	12	67	3.35E-02	1.83E-03	2.15E-05	3.8	N	0%	97%
VOC	n-Butylbenzene	01	197	1.20E+01	3.26E-01	4.15E-05	390	N	0%	93%
VOC	n-Butylbenzene	02	178	1.30E-03	1.90E-04	3.95E-05	390	N	0%	99%
VOC	n-Butylbenzene	03	51	7.50E-04	1.63E-04	3.90E-05	390	N	0%	100%
VOC	n-Butylbenzene	04	48	6.00E-03	2.27E-04	4.20E-05	390	N	0%	100%
VOC	n-Butylbenzene	05	77	6.00E-04	1.67E-04	3.70E-05	390	N	0%	100%
VOC	n-Butylbenzene	06	90	8.50E-04	1.86E-04	4.15E-05	390	N	0%	97%
VOC	n-Butylbenzene	07	30	6.50E-05	4.98E-05	4.10E-05	390	N	0%	100%
VOC	n-Butylbenzene	08	82	6.50E-04	9.92E-05	4.05E-05	390	N	0%	100%
VOC	n-Butylbenzene	09	105	6.00E-04	1.89E-04	4.05E-05	390	N	0%	100%
VOC	n-Butylbenzene	10	130	6.00E-04	2.45E-04	4.10E-05	390	N	0%	100%
VOC	n-Butylbenzene	11	148	5.40E+00	1.06E-01	3.65E-05	390	N	0%	96%
VOC	n-Butylbenzene	12	67	1.40E-02	7.40E-04	3.80E-05	390	N	0%	100%
VOC	n-Propylbenzene	01	197	1.50E+01	5.06E-01	2.60E-05	380	N	0%	88%
VOC	n-Propylbenzene	02	182	7.60E-02	1.23E-03	2.50E-05	380	N	0%	93%
VOC	n-Propylbenzene	03	51	6.00E-04	1.43E-04	2.45E-05	380	N	0%	100%
VOC	n-Propylbenzene	04	48	6.00E-03	2.11E-04	2.65E-05	380	N	0%	100%
VOC	n-Propylbenzene	05	76	6.00E-04	1.55E-04	2.30E-05	380	N	0%	100%
VOC	n-Propylbenzene	06	90	8.50E-04	1.75E-04	2.60E-05	380	N	0%	97%
VOC	n-Propylbenzene	07	30	3.95E-05	3.11E-05	2.55E-05	380	N	0%	100%
VOC	n-Propylbenzene	08	82	6.50E-04	8.94E-05	2.50E-05	380	N	0%	96%
VOC	n-Propylbenzene	09	117	6.00E-04	1.63E-04	2.55E-05	380	N	0%	100%
VOC	n-Propylbenzene	10	130	6.00E-04	2.30E-04	2.55E-05	380	N	0%	100%
VOC	n-Propylbenzene	11	148	1.20E+01	2.41E-01	2.30E-05	380	N	0%	92%
VOC	n-Propylbenzene	12	67	1.50E-02	7.63E-04	2.40E-05	380	N	0%	100%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	sec-Butylbenzene	01	197	2.90E+00	9.26E-02	2.40E-05	390	N	0%	94%
VOC	sec-Butylbenzene	02	178	1.30E-01	1.96E-03	2.30E-05	390	N	0%	99%
VOC	sec-Butylbenzene	03	51	7.00E-04	1.46E-04	2.30E-05	390	N	0%	100%
VOC	sec-Butylbenzene	04	48	6.00E-03	2.09E-04	2.45E-05	390	N	0%	100%
VOC	sec-Butylbenzene	05	73	6.00E-04	1.65E-04	2.15E-05	390	N	0%	100%
VOC	sec-Butylbenzene	06	90	8.50E-04	1.71E-04	2.45E-05	390	N	0%	99%
VOC	sec-Butylbenzene	07	30	3.70E-05	2.91E-05	2.40E-05	390	N	0%	100%
VOC	sec-Butylbenzene	08	82	6.50E-04	8.22E-05	2.35E-05	390	N	0%	100%
VOC	sec-Butylbenzene	09	117	6.00E-04	1.61E-04	2.35E-05	390	N	0%	100%
VOC	sec-Butylbenzene	10	130	6.00E-04	2.33E-04	2.40E-05	390	N	0%	100%
VOC	sec-Butylbenzene	11	148	2.70E+00	6.22E-02	2.15E-05	390	N	0%	94%
VOC	sec-Butylbenzene	12	67	1.30E-02	6.95E-04	2.25E-05	390	N	0%	100%
VOC	Styrene	01	197	4.10E+00	7.79E-02	2.40E-05	600	N	0%	87%
VOC	Styrene	02	180	7.30E-03	2.57E-04	2.30E-05	600	N	0%	89%
VOC	Styrene	03	51	6.00E-04	1.42E-04	2.30E-05	600	N	0%	99%
VOC	Styrene	04	48	6.00E-03	2.13E-04	2.45E-05	600	N	0%	95%
VOC	Styrene	05	77	6.00E-04	1.55E-04	2.15E-05	600	N	0%	97%
VOC	Styrene	06	90	8.50E-04	1.70E-04	2.45E-05	600	N	0%	94%
VOC	Styrene	07	30	3.70E-05	2.91E-05	2.40E-05	600	N	0%	100%
VOC	Styrene	08	82	6.50E-04	8.71E-05	2.35E-05	600	N	0%	99%
VOC	Styrene	09	111	6.00E-04	1.79E-04	2.35E-05	600	N	0%	95%
VOC	Styrene	10	130	6.00E-04	2.18E-04	2.40E-05	600	N	0%	100%
VOC	Styrene	11	148	6.50E-01	1.43E-02	2.15E-05	600	N	0%	98%
VOC	Styrene	12	67	1.25E-02	6.75E-04	2.25E-05	600	N	0%	100%
VOC	tert-Butyl methyl ether (MTBE)	06	38	1.05E-04	1.05E-04	1.05E-04	47	N	0%	100%
VOC	tert-Butyl methyl ether (MTBE)	10	57	1.05E-04	1.05E-04	1.05E-04	47	N	0%	100%
VOC	tert-Butyl methyl ether (MTBE)	11	21	1.05E-04	1.05E-04	1.05E-04	47	N	0%	100%
VOC	tert-Butylbenzene	01	197	1.90E+00	5.27E-02	1.75E-05	390	N	0%	98%
VOC	tert-Butylbenzene	02	181	1.30E-03	1.69E-04	1.70E-05	390	N	0%	99%
VOC	tert-Butylbenzene	03	51	6.50E-04	1.38E-04	1.65E-05	390	N	0%	100%
VOC	tert-Butylbenzene	04	48	6.00E-03	2.02E-04	1.80E-05	390	N	0%	100%
VOC	tert-Butylbenzene	05	73	6.00E-04	1.59E-04	1.55E-05	390	N	0%	99%
VOC	tert-Butylbenzene	06	90	8.50E-04	1.64E-04	1.75E-05	390	N	0%	99%
VOC	tert-Butylbenzene	07	30	2.70E-05	2.12E-05	1.75E-05	390	N	0%	100%
VOC	tert-Butylbenzene	08	82	6.50E-04	7.57E-05	1.70E-05	390	N	0%	100%
VOC	tert-Butylbenzene	09	117	6.00E-04	1.56E-04	1.75E-05	390	N	0%	100%
VOC	tert-Butylbenzene	10	130	6.00E-04	2.20E-04	1.75E-05	390	N	0%	100%
VOC	tert-Butylbenzene	11	148	1.30E+00	2.68E-02	1.55E-05	390	N	0%	97%
VOC	tert-Butylbenzene	12	67	1.10E-02	6.21E-04	1.65E-05	390	N	0%	100%
VOC	Tetrachloroethene (PCE)	01	197	9.50E-01	1.92E-02	3.10E-05	8.1	N	0%	95%
VOC	Tetrachloroethene (PCE)	02	183	2.30E-02	5.33E-04	3.00E-05	8.1	N	0%	92%
VOC	Tetrachloroethene (PCE)	03	51	5.00E-04	1.44E-04	2.95E-05	8.1	N	0%	100%
VOC	Tetrachloroethene (PCE)	04	48	6.00E-03	2.17E-04	3.15E-05	8.1	N	0%	100%
VOC	Tetrachloroethene (PCE)	05	77	6.00E-04	1.56E-04	2.75E-05	8.1	N	0%	99%
VOC	Tetrachloroethene (PCE)	06	90	8.50E-04	1.71E-04	3.15E-05	8.1	N	0%	100%
VOC	Tetrachloroethene (PCE)	07	30	4.80E-05	3.75E-05	3.10E-05	8.1	N	0%	100%
VOC	Tetrachloroethene (PCE)	08	82	6.50E-04	8.96E-05	3.05E-05	8.1	N	0%	99%
VOC	Tetrachloroethene (PCE)	09	118	1.00E-02	3.69E-04	3.05E-05	8.1	N	0%	95%
VOC	Tetrachloroethene (PCE)	10	130	6.00E-04	2.17E-04	3.05E-05	8.1	N	0%	100%
VOC	Tetrachloroethene (PCE)	11	148	2.30E+00	6.00E-02	2.75E-05	8.1	N	0%	92%
VOC	Tetrachloroethene (PCE)	12	67	1.80E-02	8.65E-04	2.85E-05	8.1	N	0%	100%
VOC	Toluene	01	197	2.60E+01	4.72E-01	5.50E-05	490	N	0%	88%
VOC	Toluene	02	183	9.80E-03	4.12E-04	5.00E-05	490	N	0%	83%
VOC	Toluene	03	51	5.10E-04	1.97E-04	5.00E-05	490	N	0%	77%
VOC	Toluene	04	48	6.00E-03	3.46E-04	5.50E-05	490	N	0%	88%
VOC	Toluene	05	78	2.40E-03	3.11E-04	4.85E-05	490	N	0%	87%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	Toluene	06	90	8.50E-04	2.47E-04	5.50E-05	490	N	0%	79%
VOC	Toluene	07	30	1.10E-03	1.88E-04	5.50E-05	490	N	0%	67%
VOC	Toluene	08	82	6.50E-04	1.67E-04	5.50E-05	490	N	0%	80%
VOC	Toluene	09	118	1.00E-02	3.69E-04	5.50E-05	490	N	0%	90%
VOC	Toluene	10	130	1.70E-03	2.67E-04	5.50E-05	490	N	0%	95%
VOC	Toluene	11	148	2.00E+00	2.22E-02	4.85E-05	490	N	0%	95%
VOC	Toluene	12	67	1.35E-02	7.22E-04	5.00E-05	490	N	0%	100%
VOC	trans-1,2-Dichloroethene	01	197	9.50E-01	1.92E-02	3.30E-05	160	N	0%	100%
VOC	trans-1,2-Dichloroethene	02	183	1.35E-03	1.62E-04	3.20E-05	160	N	0%	100%
VOC	trans-1,2-Dichloroethene	03	51	7.00E-04	1.54E-04	3.15E-05	160	N	0%	100%
VOC	trans-1,2-Dichloroethene	04	48	6.00E-03	2.19E-04	3.40E-05	160	N	0%	100%
VOC	trans-1,2-Dichloroethene	05	77	6.00E-04	1.58E-04	2.95E-05	160	N	0%	100%
VOC	trans-1,2-Dichloroethene	06	90	8.50E-04	1.71E-04	3.35E-05	160	N	0%	100%
VOC	trans-1,2-Dichloroethene	07	30	5.00E-05	3.99E-05	3.30E-05	160	N	0%	100%
VOC	trans-1,2-Dichloroethene	08	82	6.50E-04	9.21E-05	3.25E-05	160	N	0%	99%
VOC	trans-1,2-Dichloroethene	09	119	6.00E-04	1.69E-04	3.25E-05	160	N	0%	100%
VOC	trans-1,2-Dichloroethene	10	130	6.00E-04	2.16E-04	3.25E-05	160	N	0%	100%
VOC	trans-1,2-Dichloroethene	11	148	6.50E-01	1.43E-02	2.95E-05	160	N	0%	100%
VOC	trans-1,2-Dichloroethene	12	67	2.05E-02	9.60E-04	3.05E-05	160	N	0%	100%
VOC	Trichloroethene (TCE)	01	197	1.95E+00	4.82E-02	4.05E-05	0.41	Y	3%	100%
VOC	Trichloroethene (TCE)	02	183	1.80E-02	4.05E-04	3.90E-05	0.41	N	0%	97%
VOC	Trichloroethene (TCE)	03	51	5.00E-04	1.52E-04	3.80E-05	0.41	N	0%	100%
VOC	Trichloroethene (TCE)	04	48	6.00E-03	2.27E-04	4.15E-05	0.41	N	0%	100%
VOC	Trichloroethene (TCE)	05	77	6.00E-04	1.63E-04	3.60E-05	0.41	N	0%	100%
VOC	Trichloroethene (TCE)	06	90	8.50E-04	1.84E-04	4.10E-05	0.41	N	0%	97%
VOC	Trichloroethene (TCE)	07	30	6.00E-05	4.89E-05	4.05E-05	0.41	N	0%	100%
VOC	Trichloroethene (TCE)	08	82	6.50E-04	1.11E-04	3.95E-05	0.41	N	0%	96%
VOC	Trichloroethene (TCE)	09	118	6.00E-04	1.74E-04	3.95E-05	0.41	N	0%	100%
VOC	Trichloroethene (TCE)	10	130	6.00E-04	2.16E-04	4.00E-05	0.41	N	0%	98%
VOC	Trichloroethene (TCE)	11	148	3.35E+00	6.14E-02	3.60E-05	0.41	Y	5%	99%
VOC	Trichloroethene (TCE)	12	67	1.55E-02	8.14E-04	3.75E-05	0.41	N	0%	93%
VOC	Trichlorofluoromethane (Freon 11)	01	197	1.90E+00	3.74E-02	2.15E-05	2300	N	0%	99%
VOC	Trichlorofluoromethane (Freon 11)	02	183	3.30E-03	2.95E-04	2.10E-05	2300	N	0%	88%
VOC	Trichlorofluoromethane (Freon 11)	03	51	9.60E-04	2.11E-04	2.05E-05	2300	N	0%	88%
VOC	Trichlorofluoromethane (Freon 11)	04	48	6.00E-03	2.07E-04	2.20E-05	2300	N	0%	100%
VOC	Trichlorofluoromethane (Freon 11)	05	77	2.50E-03	2.31E-04	1.95E-05	2300	N	0%	91%
VOC	Trichlorofluoromethane (Freon 11)	06	90	9.80E-04	2.03E-04	2.20E-05	2300	N	0%	91%
VOC	Trichlorofluoromethane (Freon 11)	07	30	4.40E-04	5.87E-05	2.30E-05	2300	N	0%	80%
VOC	Trichlorofluoromethane (Freon 11)	08	82	1.70E-03	1.36E-04	2.10E-05	2300	N	0%	92%
VOC	Trichlorofluoromethane (Freon 11)	09	119	7.90E-03	5.29E-04	2.15E-05	2300	N	0%	67%
VOC	Trichlorofluoromethane (Freon 11)	10	130	4.90E-03	3.12E-04	2.15E-05	2300	N	0%	89%
VOC	Trichlorofluoromethane (Freon 11)	11	148	1.30E+00	2.76E-02	2.10E-05	2300	N	0%	79%
VOC	Trichlorofluoromethane (Freon 11)	12	67	2.40E-02	1.14E-03	2.00E-05	2300	N	0%	93%
VOC	Vinyl acetate	06	3	7.00E-04	7.00E-04	7.00E-04	91	N	0%	100%
VOC	Vinyl acetate	10	12	7.00E-04	7.00E-04	7.00E-04	91	N	0%	100%
VOC	Vinyl acetate	11	4	7.00E-04	7.00E-04	7.00E-04	91	N	0%	100%
VOC	Vinyl chloride	01	197	1.90E+00	3.56E-02	2.35E-05	0.059	Y	7%	100%
VOC	Vinyl chloride	02	183	1.30E-03	1.85E-04	2.25E-05	0.059	N	0%	100%
VOC	Vinyl chloride	03	51	9.50E-04	1.56E-04	2.20E-05	0.059	N	0%	100%
VOC	Vinyl chloride	04	48	6.00E-03	2.08E-04	2.40E-05	0.059	N	0%	100%
VOC	Vinyl chloride	05	77	6.00E-04	1.52E-04	2.05E-05	0.059	N	0%	100%
VOC	Vinyl chloride	06	90	8.50E-04	1.69E-04	2.35E-05	0.059	N	0%	100%
VOC	Vinyl chloride	07	30	3.60E-05	2.81E-05	2.30E-05	0.059	N	0%	100%
VOC	Vinyl chloride	08	82	6.50E-04	8.15E-05	2.25E-05	0.059	N	0%	100%
VOC	Vinyl chloride	09	119	6.00E-04	1.61E-04	2.30E-05	0.059	N	0%	100%
VOC	Vinyl chloride	10	130	6.00E-04	2.34E-04	2.30E-05	0.059	N	0%	100%

Table A-3: Summary Table of Analytes in Process Areas by Subarea and Screening Results, 0-15 feet below ground surface (mg/kg)[a]

Analyte Group	Analyte Name	Subarea Name	N (all samples)	Max	Mean	Min	Res RSL	Res RSL Exceed Y/N	Percent Exceed Res RSL	Percent Nondetect
VOC	Vinyl chloride	11	148	1.30E+00	2.44E-02	2.25E-05	0.059	Y	7%	99%
VOC	Vinyl chloride	12	67	2.70E-02	1.19E-03	2.15E-05	0.059	N	0%	100%
VOC	Xylenes, total	01	197	4.50E+02	8.50E+00	1.40E-04	58	Y	4%	88%
VOC	Xylenes, total	02	183	1.50E-01	2.61E-03	1.35E-04	58	N	0%	94%
VOC	Xylenes, total	03	51	9.50E-04	4.53E-04	1.30E-04	58	N	0%	75%
VOC	Xylenes, total	04	48	1.20E-02	5.14E-04	1.40E-04	58	N	0%	100%
VOC	Xylenes, total	05	77	5.70E-03	6.43E-04	1.25E-04	58	N	0%	94%
VOC	Xylenes, total	06	87	1.70E-03	4.41E-04	1.40E-04	58	N	0%	97%
VOC	Xylenes, total	07	30	9.80E-04	1.94E-04	1.40E-04	58	N	0%	97%
VOC	Xylenes, total	08	82	1.45E-03	3.20E-04	1.35E-04	58	N	0%	96%
VOC	Xylenes, total	09	118	5.50E-03	4.73E-04	1.35E-04	58	N	0%	95%
VOC	Xylenes, total	10	118	2.00E-03	4.95E-04	1.35E-04	58	N	0%	96%
VOC	Xylenes, total	11	144	1.40E+01	2.13E-01	1.25E-04	58	N	0%	94%
VOC	Xylenes, total	12	67	2.20E-02	1.28E-03	1.30E-04	58	N	0%	100%

Notes:

[a] Units for Radium-226 and Radium-228 are in pCi/g

Abbreviations: mg/kg= milligram per kilogram; pci/g= pico Curies per gram; Res RSL= residential regional screening level for soil

APPENDIX B
VAPOR INTRUSION PATHWAY SCREENING AND VAPOR MODELLING EQUATIONS AND ASSUMPTIONS

Appendix B: Vapor Inhalation Soil Screening Summary by Sub-Area Yerington Mine Site, Nevada

Sub-Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	% Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Loc of MaxConc (ft)	Soil Saturation (mg/kg)	Ratio of Max Detect to Soil Saturation	Residential Vapor Intrusion Criteria at TCR 1E-6 or THQ 0.1 (mg/kg)	Ratio of Max Detect to Res VI Criteria
1	VOC	Benzene	71-43-2	A	341	43	12.6	7.10E-05	1.10E+01	PA-UT23C (89-90 ft)	3.71E+02	3.0E-02	8.2E-05	**1.3E+05**
1	VOC	Bromobenzene	108-86-1	ID	341	1	0.3	2.80E+01	2.80E+01	PA-UT78 (2.5-3 ft)	2.00E+02	1.4E-01		
1	VOC	n-Butylbenzene	104-51-8	ID	341	95	27.9	2.10E-04	6.00E+01	PA-UT70A (34-35 ft)	8.32E+01	7.2E-01		
1	VOC	sec-Butylbenzene	135-98-8		341	75	22.0	1.10E-03	5.80E+00	PA-UT23A (24-25 ft)	2.09E+03	2.8E-03		
1	VOC	tert-Butylbenzene	98-06-6		341	2	0.6	3.20E-04	1.30E+00	PA-UT25 (3-3.5 ft)	1.30E+02	1.0E-02		
1	VOC	Chlorobenzene	108-90-7	D	341	1	0.3	3.70E-04	3.70E-04	PA-UT24 (4-4.5 ft)	3.30E+02	1.1E-06	5.8E-03	6.4E-02
1	VOC	2-Chlorotoluene	95-49-8	ID	341	1	0.3	1.90E+00	1.90E+00	PA-Z1D (109-110 ft)	2.07E+02	9.2E-03		
1	VOC	4-Chlorotoluene	106-43-4	ID	341	4	1.2	1.10E-01	1.20E+00	PA-UT78 (2.5-3 ft)				
1	VOC	Cumene	98-82-8	D	341	84	24.6	3.00E-05	1.60E+01	PA-UT70A (34-35 ft)	1.46E+02	1.1E-01	5.1E-02	**3.1E+02**
1	VOC	p-Cymene	99-87-6	ID	341	73	21.4	1.10E-04	4.60E+00	PA-UT23 (3-3.5 ft)	1.00E+02	4.6E-02		
1	VOC	1,2-Dibromo-3-chloropropane	96-12-8	LC	341	1	0.3	1.90E+00	1.90E+00	PA-Z1D (109-110 ft)	4.02E+02	4.7E-03	2.3E-06	**8.4E+05**
1	VOC	1,2-Dibromoethane	106-93-4	LC	341	13	3.8	8.20E-04	2.50E+00	PA-UT70A (34-35 ft)	3.76E+02	6.6E-03	3.8E-06	**6.5E+05**
1	VOC	1,2-Dichloroethane	107-06-2	B2	341	8	2.3	1.00E-03	1.40E-02	PA-UT76A (99-100 ft)	9.48E+02	1.5E-05	6.0E-05	**2.3E+02**
1	VOC	1,1-Dichloropropene	563-58-6		341	1	0.3	5.50E-05	5.50E-05	PA-F1 (0.5-2.5 ft)				
1	VOC	Ethyl Benzene	100-41-4	D	341	100	29.3	4.30E-04	1.10E+02	PA-UT70A (34-35 ft)	1.97E+02	5.6E-01	9.2E-02	**1.2E+03**
1	VOC	Methylene Chloride	75-09-2	LC	341	11	3.2	3.10E-04	1.80E-02	PA-UT71 (3-3.5 ft)	1.64E+03	1.1E-05	1.3E-02	**1.4E+00**
1	VOC	n-Propylbenzene	103-65-1	ID	341	97	28.4	1.20E-04	8.00E+01	PA-UT70A (34-35 ft)	1.09E+02	7.3E-01		
1	VOC	Styrene	100-42-5		341	22	6.5	5.00E-05	4.10E+00	PA-UT23 (3-3.5 ft)	7.58E+02	5.4E-03	5.4E-01	**7.6E+00**
1	VOC	Tetrachloroethene	127-18-4	LC	341	11	3.2	1.40E-04	4.80E-03	PA-H2 (8.5-10 ft)	1.26E+02	3.8E-05	7.8E-04	**6.1E+00**
1	VOC	Toluene	108-88-3	ID	341	102	29.9	1.20E-04	1.50E+02	PA-UT70A (34-35 ft)	2.91E+02	5.1E-01	2.7E-01	**5.7E+02**
1	VOC	1,2,4-Trichlorobenzene	120-82-1	LC	355	1	0.3	1.00E-03	1.00E-03	PA-JJJ2 (39-40 ft)	5.28E+02	1.9E-06	6.0E-03	1.7E-01
1	VOC	Trichlorofluoromethane	75-69-4	ID	341	3	0.9	5.10E-04	1.10E-03	PA-W1B (99-100 ft)	1.13E+03	9.8E-07	3.4E-03	3.2E-01
1	VOC	1,2,3-Trichloropropane	96-18-4	LC	341	2	0.6	9.80E-02	3.90E-01	PA-UT23 (3-3.5 ft)	2.97E+02	1.3E-03	7.8E-05	**5.0E+03**
1	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	341	116	34.0	1.20E-04	4.20E+02	PA-UT70A (34-35 ft)	1.30E+02	**3.2E+00**	2.4E-02	**1.7E+04**
1	VOC	1,3,5-Trimethylbenzene	108-67-8	ID	341	105	30.8	1.50E-03	1.60E+02	PA-UT70A (34-35 ft)	2.38E+02	6.7E-01	3.8E-02	**4.2E+03**
1	VOC	Xylenes (total)	1330-20-7	ID	341	106	31.1	3.90E-03	7.80E+02	PA-UT70A (34-35 ft)	1.39E+02	**5.6E+00**	7.9E-03	**9.9E+04**
1	SVOC	Acenaphthene	83-32-9	ID	337	48	14.2	6.00E-03	1.80E+00	PA-UT23A (3-4 ft)	5.68E+01	3.2E-02		
1	SVOC	Acenaphthylene	208-96-8	D	337	7	2.1	4.40E-03	8.70E-03	PA-JJJ2 (34-35 ft)				
1	SVOC	Anthracene	120-12-7	ID	337	2	0.6	4.40E-02	7.20E-02	PA-UT76A (24-25 ft)	2.37E+00	3.0E-02		
1	SVOC	Benzo(a)anthracene	56-55-3	B2	337	1	0.3	4.70E-03	4.70E-03	PA-W1A (19-20 ft)	3.77E+01	1.2E-04	7.0E+01	6.7E-05
1	SVOC	Benzo(a)pyrene	50-32-8	B2	337	1	0.3	4.70E-03	4.70E-03	PA-UT71A (4-5 ft)	1.30E+01	3.6E-04	8.4E+01	5.6E-05
1	SVOC	Benzo(b)fluoranthene	205-99-2	B2	337	2	0.6	7.40E-03	8.80E-03	PA-OOO2 (4-5 ft)	3.71E+00	2.4E-03	8.2E+00	1.1E-03
1	SVOC	Benzo(g,h,i)perylene	191-24-2	D	337	3	0.9	5.20E-03	3.30E-01	PA-W1A (24-25 ft)				
1	SVOC	Benzoic Acid	65-85-0	D	337	1	0.3	3.90E+00	3.90E+00	PA-Z1D (29-30 ft)	1.40E+02	2.8E-02		
1	SVOC	bis(2-Chloroethoxy)methane	111-91-1	D	340	1	0.3	2.60E+00	2.60E+00	PA-UT70A (29-30 ft)	1.27E+01	2.0E-01		
1	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	340	6	1.8	3.60E-02	5.20E-01	PA-F6 (24-25 ft)	7.34E+04	7.1E-06		
1	SVOC	4-Bromophenyl-phenyl ether	101-55-3	D	340	1	0.3	3.20E-02	3.20E-02	PA-G2 (8.5-10 ft)				
1	SVOC	Butylbenzylphthalate	85-68-7	C	340	3	0.9	6.10E-02	4.10E-01	PA-F5 (8.5-10 ft)	7.25E+02	5.7E-04		
1	SVOC	Chrysene	218-01-9	B2	337	6	1.8	4.60E-03	3.10E-02	PA-X4 (0-1 ft)	4.47E-02	6.9E-01	2.8E+02	1.1E-04
1	SVOC	Fluoranthene	206-44-0	D	337	9	2.7	4.30E-03	4.30E-02	PA-UT76A (29-30 ft)	6.46E+01	6.7E-04		
1	SVOC	Fluorene	86-73-7	D	337	66	19.6	5.90E-03	3.80E+00	PA-UT23A (3-4 ft)	8.09E+01	4.7E-02		
1	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	337	1	0.3	6.50E-03	6.50E-03	PA-UT71A (4-5 ft)	8.48E-01	7.7E-03	2.2E+03	3.0E-06
1	SVOC	2-Methylnaphthalene	91-57-6	ID	340	89	26.2	2.70E-01	4.70E+01	PA-UT23C (24-25 ft)	2.26E+02	2.1E-01		
1	SVOC	2-Methylphenol	95-48-7	C	339	1	0.3	9.10E-01	9.10E-01	PA-UT70A (19-20 ft)	8.55E+03	1.1E-04		
1	SVOC	Naphthalene	91-20-3	C	341	114	33.4	5.80E-05	6.10E+01	PA-UT70A (34-35 ft)	1.30E+02	4.7E-01	7.6E-03	**8.0E+03**

AAppendix B: Vapor Inhalation Soil Screening Summary by Sub-Area Yerington Mine Site, Nevada

Sub-Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	% Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Loc of MaxConc (ft)	Soil Saturation (mg/kg)	Ratio of Max Detect to Soil Saturation	Residential Vapor Intrusion Criteria at TCR 1E-6 or THQ 0.1 (mg/kg)	Ratio of Max Detect to Res VI Criteria
1	SVOC	Phenanthrene	85-01-8	D	337	84	24.9	5.20E-03	7.60E+00	PA-UT23C (24-25 ft)	3.31E+01	2.3E-01		
1	SVOC	Pyrene	129-00-0	NC	337	11	3.3	4.70E-03	9.40E-02	PA-UT77A (48-50 ft)	4.74E+01	2.0E-03		
1	PEST	Aldrin	309-00-2	B2	86	1	1.2	5.70E-03	5.70E-03	PA-W1 (8.5-10 ft)	2.90E+03	2.0E-06	3.7E-01	1.5E-02
1	PEST	alpha-BHC	319-84-6	B2	86	6	7.0	2.00E-04	1.60E-02	PA-W1 (8.5-10 ft)	6.89E+00	2.3E-03	7.9E-03	**2.0E+00**
1	PEST	beta-BHC	319-85-7	C	86	1	1.2	1.90E-02	1.90E-02	PA-W1 (8.5-10 ft)	1.28E+00	1.5E-02	6.2E-01	3.0E-02
1	PEST	delta-BHC	319-86-8	D	86	4	4.7	3.90E-04	1.40E-02	PA-W1 (8.5-10 ft)	1.46E+02	9.6E-05		
1	PEST	gamma-BHC	58-89-9	B2-C	86	2	2.3	1.30E-02	1.40E-02	PA-W1 (8.5-10 ft)	4.30E+00	3.3E-03		
1	PEST	4,4'-DDD	72-54-8	B2	86	3	3.5	2.00E-03	3.50E-02	PA-UT25 (3-3.5 ft)	6.76E+02	5.2E-05		
1	PEST	4,4'-DDE	72-55-9	B2	86	5	5.8	1.50E-03	1.50E-01	PA-UT25 (3-3.5 ft)	1.97E+03	7.6E-05		
1	PEST	4,4'-DDT	50-29-3	B2	86	12	14.0	3.30E-03	1.70E-01	PA-W1 (0.5-2.5 ft)	1.91E+02	8.9E-04	9.4E+02	1.8E-04
1	PEST	Dieldrin	60-57-1	B2	86	1	1.2	1.80E-02	1.80E-02	PA-UT25 (3-3.5 ft)	1.91E+01	9.4E-04	5.0E-02	3.6E-01
1	PEST	Endrin	72-20-8	D	86	3	3.5	2.50E-03	5.00E-02	PA-UT25 (3-3.5 ft)	9.23E+00	5.4E-03		
1	PEST	Endrin ketone	53494-70-5		86	2	2.3	9.00E-03	2.00E-02	PA-W1 (8.5-10 ft)				
1	PEST	Heptachlor	76-44-8	B2	86	1	1.2	4.30E-03	4.30E-03	PA-W1 (8.5-10 ft)	7.02E+02	6.1E-06	9.8E-02	4.4E-02
1	PEST	Heptachlor epoxide	1024-57-3	B2	86	2	2.3	4.80E-03	1.20E-02	PA-W1 (0.5-2.5 ft)	3.46E+02	3.5E-05	4.8E-01	2.5E-02
1	PEST	Methoxychlor	72-43-5	D	86	4	4.7	3.10E-03	5.80E-02	PA-W1 (0.5-2.5 ft)	3.37E+01	1.7E-03		
1	HERB	2,4-DB	94-82-6		82	1	1.2	4.40E-01	4.40E-01	PA-UT25 (3-3.5 ft)				
1	HERB	MCPP (2-(2-methyl-4-chlorophenoxy) propanoic acid)	93-65-2		84	1	1.2	2.40E+00	2.40E+00	PA-H1 (0.5-2.5 ft)				
2	VOC	Benzene	71-43-2	A	212	4	1.9	6.80E-05	3.30E-03	PA-EX02 (0.5-1 ft)	3.71E+02	8.9E-06	8.2E-05	**4.0E+01**
2	VOC	n-Butylbenzene	104-51-8	ID	207	1	0.5	1.50E-04	1.50E-04	PA-TR1 (0.5-1 ft)	8.32E+01	1.8E-06		
2	VOC	sec-Butylbenzene	135-98-8		207	1	0.5	1.30E-01	1.30E-01	PA-EX02 (0.5-1 ft)	2.09E+03	6.2E-05		
2	VOC	tert-Butylbenzene	98-06-6		210	1	0.5	4.50E-04	4.50E-04	PA-UT07 (14-14.5 ft)	1.30E+02	3.5E-06		
2	VOC	Chlorobenzene	108-90-7	D	212	1	0.5	8.20E-04	8.20E-04	PA-EX03 (0.5-1 ft)	3.30E+02	2.5E-06	5.8E-03	1.4E-01
2	VOC	Cumene	98-82-8	D	212	4	1.9	4.30E-05	2.40E-02	PA-EX02 (0.5-1 ft)	1.46E+02	1.6E-04	5.1E-02	4.7E-01
2	VOC	p-Cymene	99-87-6	ID	207	3	1.4	1.30E-03	9.80E-02	PA-EX02 (0.5-1 ft)	1.00E+02	9.8E-04		
2	VOC	1,1-Dichloroethene	75-35-4	C	212	7	3.3	6.00E-04	7.80E-03	PA-S2 (0.5-2.5 ft)	8.64E+02	9.0E-06	1.4E-03	**5.5E+00**
2	VOC	1,2-Dichloropropane	78-87-5	LC	210	2	1.0	1.10E-04	1.80E-04	PA-K2 (8.5-10 ft)	4.73E+02	3.8E-07	1.5E-04	**1.2E+00**
2	VOC	Ethyl Benzene	100-41-4	D	212	5	2.4	2.10E-04	1.40E-02	PA-EX02 (0.5-1 ft)	1.97E+02	7.1E-05	9.2E-02	1.5E-01
2	VOC	Methylene Chloride	75-09-2	LC	212	4	1.9	6.80E-04	1.80E-02	PA-EX02 (0.5-1 ft)	1.64E+03	1.1E-05	1.3E-02	**1.4E+00**
2	VOC	n-Propylbenzene	103-65-1	ID	211	5	2.4	1.80E-04	7.60E-02	PA-EX02 (0.5-1 ft)	1.09E+02	7.0E-04		
2	VOC	Styrene	100-42-5		209	18	8.6	5.20E-05	7.30E-03	PA-EX02 (0.5-1 ft)	7.58E+02	9.6E-06	5.4E-01	1.3E-02
2	VOC	1,1,2,2-Tetrachloroethane	79-34-5	LC	212	2	0.9	5.40E-04	2.70E-02	PA-EX02 (0.5-1 ft)	9.83E+02	2.7E-05		
2	VOC	Tetrachloroethene	127-18-4	LC	212	12	5.7	9.70E-05	2.30E-02	PA-EX02 (0.5-1 ft)	1.26E+02	1.8E-04	7.8E-04	**2.9E+01**
2	VOC	Toluene	108-88-3	ID	212	26	12.3	1.10E-04	9.80E-03	PA-EX02 (0.5-1 ft)	2.91E+02	3.4E-05	2.7E-01	3.7E-02
2	VOC	1,2,3-Trichlorobenzene	87-61-6	ID	212	1	0.5	3.00E-03	3.00E-03	PA-EX03 (0.5-1 ft)	3.36E+02	8.9E-06		
2	VOC	1,2,4-Trichlorobenzene	120-82-1	LC	225	1	0.4	2.30E-03	2.30E-03	PA-EX03 (0.5-1 ft)	5.28E+02	4.4E-06	6.0E-03	3.8E-01
2	VOC	1,1,2-Trichloroethane	79-00-5	C	212	2	0.9	1.90E-04	2.70E-04	PA-EX03 (0.5-1 ft)	8.36E+02	3.2E-07	2.2E-04	**1.2E+00**
2	VOC	Trichloroethene	79-01-6	HC	212	2	0.9	4.70E-04	6.20E-04	PA-UT39 (3-3.5 ft)	6.06E+02	1.0E-06	6.4E-05	**9.7E+00**
2	VOC	Trichlorofluoromethane	75-69-4	ID	212	18	8.5	1.30E-04	3.30E-03	PA-UT36 (1-1.5 ft)	1.13E+03	2.9E-06	3.4E-03	9.7E-01
2	VOC	1,2,3-Trichloropropane	96-18-4	LC	212	1	0.5	2.70E-04	2.70E-04	PA-EX03 (0.5-1 ft)	2.97E+02	9.1E-07	7.8E-05	**3.5E+00**
2	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	211	9	4.3	9.20E-05	9.60E-01	PA-EX02 (0.5-1 ft)	1.30E+02	7.4E-03	2.4E-02	**3.9E+01**
2	VOC	1,3,5-Trimethylbenzene	108-67-8	ID	212	7	3.3	1.10E-04	2.70E-01	PA-EX02 (0.5-1 ft)	2.38E+02	1.1E-03	3.8E-02	**7.1E+00**
2	VOC	Xylenes (total)	1330-20-7	ID	212	6	2.8	5.00E-04	1.50E-01	PA-EX02 (0.5-1 ft)	1.39E+02	1.1E-03	7.9E-03	**1.9E+01**
2	SVOC	Acenaphthylene	208-96-8	D	214	1	0.5	3.00E-02	3.00E-02	PA-K4C (0-1 ft)				
2	SVOC	Anthracene	120-12-7	ID	214	1	0.5	8.00E-03	8.00E-03	PA-M2B (0-1 ft)	2.37E+00	3.4E-03		

AAppendix B: Vapor Inhalation Soil Screening Summary by Sub-Area Yerington Mine Site, Nevada

Sub-Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	% Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Loc of MaxConc (ft)	Soil Saturation (mg/kg)	Ratio of Max Detect to Soil Saturation	Residential Vapor Intrusion Criteria at TCR 1E-6 or THQ 0.1 (mg/kg)	Ratio of Max Detect to Res VI Criteria
2	SVOC	Benzo(a)anthracene	56-55-3	B2	214	2	0.9	2.40E-02	2.50E-02	PA-M2B (0-1 ft)	3.77E+01	6.6E-04	7.0E+01	3.6E-04
2	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	214	12	5.6	4.30E-02	2.50E+00	PA-EX03 (0.5-1 ft)	7.34E+04	3.4E-05		
2	SVOC	Butylbenzylphthalate	85-68-7	C	214	9	4.2	9.00E-02	3.60E+00	PA-EX01 (0.5-1 ft)	7.25E+02	5.0E-03		
2	SVOC	Chrysene	218-01-9	B2	214	3	1.4	2.10E-02	6.30E-02	PA-M2 (0.5-2.5 ft)	4.47E-02	**1.4E+00**	2.8E+02	2.2E-04
2	SVOC	Diethylphthalate	84-66-2	D	214	6	2.8	2.00E-02	6.20E-02	PA-K2 (0.5-2.5 ft)	1.60E+03	3.9E-05		
2	SVOC	Di-n-butylphthalate	84-74-2	D	214	7	3.3	2.20E-02	1.30E-01	PA-K5 (0.5-2.5 ft)	1.27E+06	1.0E-07		
2	SVOC	Fluoranthene	206-44-0	D	214	2	0.9	3.30E-02	1.00E-01	PA-M2B (0-1 ft)	6.46E+01	1.5E-03		
2	SVOC	Fluorene	86-73-7	D	214	1	0.5	9.40E-03	9.40E-03	PA-M2B (0-1 ft)	8.09E+01	1.2E-04		
2	SVOC	2-Methylnaphthalene	91-57-6	ID	214	2	0.9	1.50E-01	5.50E+00	PA-EX02 (0.5-1 ft)	2.26E+02	2.4E-02		
2	SVOC	Naphthalene	91-20-3	C	208	9	4.3	6.40E-05	9.80E-01	PA-EX02 (0.5-1 ft)	1.30E+02	7.5E-03	7.6E-03	**1.3E+02**
2	SVOC	Phenanthrene	85-01-8	D	214	8	3.7	5.40E-03	4.00E+00	PA-EX02 (0.5-1 ft)	3.31E+01	1.2E-01		
2	SVOC	Pyrene	129-00-0	NC	214	5	2.3	1.80E-02	7.30E-02	PA-C1C (0-1 ft)	4.74E+01	1.5E-03		
2	PEST	Aldrin	309-00-2	B2	133	1	0.8	3.00E-04	3.00E-04	PA-CC2 (0.5-2.5 ft)	2.90E+03	1.0E-07	3.7E-01	8.2E-04
2	PEST	alpha-BHC	319-84-6	B2	133	12	9.0	2.00E-04	2.00E-02	PA-M1 (8.5-10 ft)	6.89E+00	2.9E-03	7.9E-03	**2.5E+00**
2	PEST	beta-BHC	319-85-7	C	133	5	3.8	5.70E-04	1.20E-02	PA-C1 (8.5-10 ft)	1.28E+00	9.4E-03	6.2E-01	1.9E-02
2	PEST	delta-BHC	319-86-8	D	133	7	5.3	3.50E-04	7.70E-03	PA-K5 (0.5-2.5 ft)	1.46E+02	5.3E-05		
2	PEST	gamma-BHC	58-89-9	B2-C	133	2	1.5	2.50E-04	4.30E-03	PA-C1 (8.5-10 ft)	4.30E+00	1.0E-03		
2	PEST	4,4'-DDD	72-54-8	B2	133	12	9.0	2.80E-03	1.60E-01	PA-I1 (0.5-2.5 ft)	6.76E+02	2.4E-04		
2	PEST	4,4'-DDE	72-55-9	B2	133	20	15.0	1.00E-03	3.00E-01	PA-I1 (0.5-2.5 ft)	1.97E+03	1.5E-04		
2	PEST	4,4'-DDT	50-29-3	B2	133	36	27.1	2.00E-03	3.00E+00	PA-I1 (0.5-2.5 ft)	1.91E+02	1.6E-02	9.4E+02	3.2E-03
2	PEST	Dieldrin	60-57-1	B2	133	6	4.5	7.60E-04	2.40E-02	PA-UT07 (14-14.5 ft)	1.91E+01	1.3E-03	5.0E-02	4.8E-01
2	PEST	Endosulfan	115-29-7		133	1	0.8	7.95E-03	7.95E-03	PA-I1 (0.5-2.5 ft)	5.63E-02	1.4E-01		
2	PEST	Endrin	72-20-8	D	133	3	2.3	8.20E-04	6.20E-03	PA-I1 (0.5-2.5 ft)	9.23E+00	6.7E-04		
2	PEST	Endrin aldehyde	7421-93-4		133	1	0.8	1.70E-02	1.70E-02	PA-UT36 (1-1.5 ft)				
2	PEST	Endrin ketone	53494-70-5		133	1	0.8	1.70E-02	1.70E-02	PA-M2 (0.5-2.5 ft)				
2	PEST	Heptachlor	76-44-8	B2	133	2	1.5	1.80E-03	1.80E-03	PA-C1 (8.5-10 ft)	7.02E+02	2.6E-06	9.8E-02	1.8E-02
2	PEST	Heptachlor epoxide	1024-57-3	B2	133	2	1.5	9.00E-04	6.60E-03	PA-K5 (0.5-2.5 ft)	3.46E+02	1.9E-05	4.8E-01	1.4E-02
2	PEST	Methoxychlor	72-43-5	D	133	6	4.5	2.30E-03	1.40E-01	PA-EX04 (1.5-2 ft)	3.37E+01	4.2E-03		
2	HERB	MCPP (2-(2-methyl-4-chlorophenoxy) propanoic acid)	93-65-2		128	1	0.8	2.00E+00	2.00E+00	PA-N1 (0.5-2.5 ft)				
3	VOC	Benzene	71-43-2	A	83	11	13.3	4.80E-05	2.80E-04	PA-P16 (19-20 ft)	3.71E+02	7.5E-07	8.2E-05	**3.4E+00**
3	VOC	1,3-Dichloropropane	142-28-9	ID	83	1	1.2	6.40E-05	6.40E-05	PA-P14 (24-25 ft)	3.44E+05	1.9E-10		
3	VOC	Methylene Chloride	75-09-2	LC	83	2	2.4	3.50E-04	6.10E-04	PA-P15 (19-20 ft)	1.64E+03	3.7E-07	1.3E-02	4.8E-02
3	VOC	Styrene	100-42-5		83	1	1.2	5.60E-05	5.60E-05	PA-P18 (9-10 ft)	7.58E+02	7.4E-08	5.4E-01	1.0E-04
3	VOC	Toluene	108-88-3	ID	83	13	15.7	1.20E-04	6.30E-04	PA-P18 (24-25 ft)	2.91E+02	2.2E-06	2.7E-01	2.4E-03
3	VOC	Trichlorofluoromethane	75-69-4	ID	83	8	9.6	2.60E-04	7.70E-03	PA-YY2 (20-22 ft)	1.13E+03	6.8E-06	3.4E-03	**2.3E+00**
3	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	82	2	2.4	2.20E-04	3.10E-04	PA-P15 (4-5 ft)	1.30E+02	2.4E-06	2.4E-02	1.3E-02
3	VOC	1,3,5-Trimethylbenzene	108-67-8	ID	83	1	1.2	7.90E-05	7.90E-05	PA-P15 (14-15 ft)	2.38E+02	3.3E-07	3.8E-02	2.1E-03
3	VOC	Xylenes (total)	1330-20-7	ID	83	8	9.6	3.60E-04	7.30E-04	PA-P1 (14-15 ft)	1.39E+02	5.2E-06	7.9E-03	9.2E-02
3	SVOC	Acenaphthene	83-32-9	ID	83	2	2.4	4.30E-03	8.10E-03	PA-P22 (14-15 ft)	5.68E+01	1.4E-04		
3	SVOC	Acenaphthylene	208-96-8	D	83	2	2.4	4.10E-03	7.10E-03	PA-P22 (14-15 ft)				
3	SVOC	Benzoic Acid	65-85-0	D	82	2	2.4	2.60E-01	2.60E-01	PA-P4 (14-15 ft)	1.40E+02	1.9E-03		
3	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	82	4	4.9	7.50E-02	1.20E-01	PA-P18 (24-25 ft)	7.34E+04	1.6E-06		
3	SVOC	4-Bromophenyl-phenyl ether	101-55-3	D	82	1	1.2	3.10E-02	3.10E-02	PA-P19 (24-25 ft)				
3	SVOC	Naphthalene	91-20-3	C	83	2	2.4	2.40E-04	4.30E-04	PA-YY1 (8.5-10 ft)	1.30E+02	3.3E-06	7.6E-03	5.6E-02
3	PEST	Aldrin	309-00-2	B2	57	2	3.5	4.50E-04	8.50E-04	PA-P5 (14-15 ft)	2.90E+03	2.9E-07	3.7E-01	2.3E-03

Appendix B: Vapor Inhalation Soil Screening Summary by Sub-Area Yerington Mine Site, Nevada

Sub-Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	% Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Loc of MaxConc (ft)	Soil Saturation (mg/kg)	Ratio of Max Detect to Soil Saturation	Residential Vapor Intrusion Criteria at TCR 1E-6 or THQ 0.1 (mg/kg)	Ratio of Max Detect to Res VI Criteria
3	PEST	alpha-BHC	319-84-6	B2	57	1	1.8	5.30E-03	5.30E-03	PA-P5 (14-15 ft)	6.89E+00	7.7E-04	7.9E-03	6.7E-01
3	PEST	beta-BHC	319-85-7	C	57	2	3.5	4.90E-04	9.90E-04	PA-P5 (14-15 ft)	1.28E+00	7.8E-04	6.2E-01	1.6E-03
3	PEST	delta-BHC	319-86-8	D	57	1	1.8	7.10E-03	7.10E-03	PA-P5 (14-15 ft)	1.46E+02	4.9E-05		
3	PEST	gamma-BHC	58-89-9	B2-C	57	1	1.8	9.80E-03	9.80E-03	PA-P5 (14-15 ft)	4.30E+00	2.3E-03		
3	PEST	Chlordane (total)	57-74-9	B2	57	2	3.5	4.75E-04	5.55E-04	PA-P6 (14-15 ft)			2.7E+00	2.0E-04
3	PEST	4,4'-DDD	72-54-8	B2	57	1	1.8	1.60E-03	1.60E-03	PA-P5 (14-15 ft)	6.76E+02	2.4E-06		
3	PEST	4,4'-DDE	72-55-9	B2	57	1	1.8	7.80E-03	7.80E-03	PA-P5 (14-15 ft)	1.97E+03	4.0E-06		
3	PEST	4,4'-DDT	50-29-3	B2	57	2	3.5	2.40E-03	1.30E-02	PA-P5 (14-15 ft)	1.91E+02	6.8E-05	9.4E+02	1.4E-05
3	PEST	Endosulfan	115-29-7		57	1	1.8	4.45E-04	4.45E-04	PA-P5 (14-15 ft)	5.63E-02	7.9E-03		
3	PEST	Endosulfan sulfate	1031-07-8	ID	57	1	1.8	3.20E-04	3.20E-04	PA-P6 (14-15 ft)	8.54E+02	3.7E-07		
3	PEST	Endrin	72-20-8	D	57	2	3.5	1.10E-03	1.10E-03	PA-P14 (4-6 ft)	9.23E+00	1.2E-04		
3	PEST	Endrin ketone	53494-70-5		57	2	3.5	1.00E-03	3.50E-03	PA-P14 (4-6 ft)				
3	PEST	Heptachlor epoxide	1024-57-3	B2	57	1	1.8	5.50E-04	5.50E-04	PA-P5 (14-15 ft)	3.46E+02	1.6E-06	4.8E-01	1.2E-03
3	PEST	Methoxychlor	72-43-5	D	57	2	3.5	3.20E-03	7.70E-03	PA-P14 (4-6 ft)	3.37E+01	2.3E-04		
3	PEST	Toxaphene	8001-35-2	B2	57	1	1.8	1.30E-01	1.30E-01	PA-P5 (14-15 ft)	6.04E+02	2.2E-04	1.9E+01	7.0E-03
4	VOC	Benzene	71-43-2	A	67	1	1.5	1.50E-04	1.50E-04	PA-DD7 (0.5-1 ft)	3.71E+02	4.0E-07	8.2E-05	**1.8E+00**
4	VOC	Dichlorodifluoromethane	75-71-8	ID	67	1	1.5	2.90E-04	2.90E-04	PA-DD4 (0.5-1 ft)	3.48E+03	8.3E-08	7.1E-04	4.1E-01
4	VOC	Methylene Chloride	75-09-2	LC	67	8	11.9	3.20E-04	8.90E-04	PA-DD14 (5.5-6.5 ft)	1.64E+03	5.4E-07	1.3E-02	7.0E-02
4	VOC	Styrene	100-42-5		67	1	1.5	1.00E-04	1.00E-04	PA-DD4 (0.5-1 ft)	7.58E+02	1.3E-07	5.4E-01	1.8E-04
4	VOC	Toluene	108-88-3	ID	67	4	6.0	1.70E-04	5.80E-03	PA-DD17 (9-10 ft)	2.91E+02	2.0E-05	2.7E-01	2.2E-02
4	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	67	1	1.5	1.90E-04	1.90E-04	PA-DD4 (0.5-1 ft)	1.30E+02	1.5E-06	2.4E-02	7.8E-03
4	VOC	1,3,5-Trimethylbenzene	108-67-8	ID	67	1	1.5	7.20E-05	7.20E-05	PA-DD4 (0.5-1 ft)	2.38E+02	3.0E-07	3.8E-02	1.9E-03
4	SVOC	Acenaphthene	83-32-9	ID	98	1	1.0	2.80E-02	2.80E-02	PA-FF4C (0-1 ft)	5.68E+01	4.9E-04		
4	SVOC	Acenaphthylene	208-96-8	D	98	3	3.1	7.70E-03	8.60E-02	PA-FF4B (24-25 ft)				
4	SVOC	Anthracene	120-12-7	ID	98	1	1.0	5.40E-02	5.40E-02	PA-FF4C (0-1 ft)	2.37E+00	2.3E-02		
4	SVOC	Benzo(a)anthracene	56-55-3	B2	98	5	5.1	1.10E-02	1.80E+00	PA-DD10 (0.5-1 ft)	3.77E+01	4.8E-02	7.0E+01	2.6E-02
4	SVOC	Benzo(a)pyrene	50-32-8	B2	98	4	4.1	4.40E-02	1.70E+00	PA-DD10 (0.5-1 ft)	1.30E+01	1.3E-01	8.4E+01	2.0E-02
4	SVOC	Benzo(b)fluoranthene	205-99-2	B2	98	4	4.1	1.10E-01	3.10E+00	PA-DD10 (0.5-1 ft)	3.71E+00	8.4E-01	8.2E+00	3.8E-01
4	SVOC	Benzo(g,h,i)perylene	191-24-2	D	97	4	4.1	4.40E-02	9.00E-01	PA-DD10 (0.5-1 ft)				
4	SVOC	Benzo(k)fluoranthene	207-08-9	B2	98	4	4.1	3.50E-02	1.20E+00	PA-DD10 (0.5-1 ft)	3.44E+00	3.5E-01	1.3E+04	9.5E-05
4	SVOC	Benzoic Acid	65-85-0	D	96	2	2.1	2.60E-01	2.70E-01	PA-DD1 (5.5-6.5 ft)	1.40E+02	1.9E-03		
4	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	98	6	6.1	2.00E-01	1.20E+00	PA-DD4 (0.5-1 ft)	7.34E+04	1.6E-05		
4	SVOC	Chrysene	218-01-9	B2	98	5	5.1	6.10E-02	2.60E+00	PA-DD10 (0.5-1 ft)	4.47E-02	**5.8E+01**	2.8E+02	9.2E-03
4	SVOC	Dibenz(a,h)anthracene	53-70-3	B2	98	3	3.1	8.80E-03	8.30E-02	PA-FF4C (0-1 ft)	3.07E+03	2.7E-05	1.0E+05	8.0E-07
4	SVOC	Fluoranthene	206-44-0	D	98	7	7.1	2.00E-02	3.50E+00	PA-DD10 (0.5-1 ft)	6.46E+01	5.4E-02		
4	SVOC	Fluorene	86-73-7	D	98	2	2.0	6.80E-03	1.00E-02	PA-FF4C (0-1 ft)	8.09E+01	1.2E-04		
4	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	98	4	4.1	4.90E-02	6.20E-01	PA-DD10 (0.5-1 ft)	8.48E-01	7.3E-01	2.2E+03	2.8E-04
4	SVOC	Phenanthrene	85-01-8	D	98	6	6.1	1.40E-02	2.10E+00	PA-DD10 (0.5-1 ft)	3.31E+01	6.3E-02		
4	SVOC	Pyrene	129-00-0	NC	98	7	7.1	3.60E-02	2.60E+00	PA-DD10 (0.5-1 ft)	4.74E+01	5.5E-02		
4	PEST	alpha-BHC	319-84-6	B2	44	1	2.3	3.00E-03	3.00E-03	PA-FF2 (0.5-2.5 ft)	6.89E+00	4.4E-04	7.9E-03	3.8E-01
4	PEST	beta-BHC	319-85-7	C	44	1	2.3	3.00E-03	3.00E-03	PA-FF2 (0.5-2.5 ft)	1.28E+00	2.4E-03	6.2E-01	4.8E-03
4	PEST	4,4'-DDD	72-54-8	B2	44	2	4.5	6.30E-03	7.30E-03	PA-DD4 (0.5-1 ft)	6.76E+02	1.1E-05		
4	PEST	4,4'-DDE	72-55-9	B2	44	5	11.4	4.00E-04	3.60E-02	PA-DD4 (0.5-1 ft)	1.97E+03	1.8E-05		
4	PEST	4,4'-DDT	50-29-3	B2	44	8	18.2	1.40E-03	3.70E-02	PA-DD7 (0.5-1 ft)	1.91E+02	1.9E-04	9.4E+02	3.9E-05
4	PEST	Endosulfan sulfate	1031-07-8	ID	44	1	2.3	8.20E-03	8.20E-03	PA-FF2 (0.5-2.5 ft)	8.54E+02	9.6E-06		

Appendix B: Vapor Inhalation Soil Screening Summary by Sub-Area Yerington Mine Site, Nevada

Sub-Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	% Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Loc of MaxConc (ft)	Soil Saturation (mg/kg)	Ratio of Max Detect to Soil Saturation	Residential Vapor Intrusion Criteria at TCR 1E-6 or THQ 0.1 (mg/kg)	Ratio of Max Detect to Res VI Criteria
4	PEST	Endrin	72-20-8	D	44	1	2.3	4.80E-03	4.80E-03	PA-FF2 (0.5-2.5 ft)	9.23E+00	5.2E-04		
4	PEST	Endrin aldehyde	7421-93-4		44	1	2.3	2.90E-02	2.90E-02	PA-FF2 (0.5-2.5 ft)				
4	PEST	Heptachlor	76-44-8	B2	44	2	4.5	2.40E-03	1.10E-02	PA-DD4 (0.5-1 ft)	7.02E+02	1.6E-05	9.8E-02	1.1E-01
4	PEST	Heptachlor epoxide	1024-57-3	B2	44	1	2.3	2.70E-03	2.70E-03	PA-FF2 (0.5-2.5 ft)	3.46E+02	7.8E-06	4.8E-01	5.7E-03
4	PEST	Methoxychlor	72-43-5	D	44	1	2.3	3.30E-02	3.30E-02	PA-FF2 (0.5-2.5 ft)	3.37E+01	9.8E-04		
4	PCB	PCBs (total)	1336-36-3	B2	72	1	1.4	2.00E-02	2.00E-02	PA-DD4 (0.5-1 ft)	8.30E+01	2.4E-04	1.3E-01	1.6E-01
5	VOC	Benzene	71-43-2	A	128	4	3.1	8.40E-05	4.10E-03	PA-UT26 (4-4.5 ft)	3.71E+02	1.1E-05	8.2E-05	**5.0E+01**
5	VOC	tert-Butylbenzene	98-06-6		128	1	0.8	4.30E-05	4.30E-05	PA-EE14 (0.5-2.5 ft)	1.30E+02	3.3E-07		
5	VOC	Chloroform	67-66-3	B2	132	2	1.5	2.30E-04	9.70E-04	PA-UT26 (4-4.5 ft)	1.27E+03	7.7E-07	3.0E-05	**3.2E+01**
5	VOC	Cumene	98-82-8	D	132	1	0.8	1.20E-04	1.20E-04	PA-UT26 (4-4.5 ft)	1.46E+02	8.2E-07	5.1E-02	2.3E-03
5	VOC	p-Cymene	99-87-6	ID	128	1	0.8	3.10E-04	3.10E-04	PA-UT26 (4-4.5 ft)	1.00E+02	3.1E-06		
5	VOC	1,2-Dibromo-3-chloropropane	96-12-8	LC	132	1	0.8	1.60E-03	1.60E-03	PA-EE5 (0-0.5 ft)	4.02E+02	4.0E-06	2.3E-06	**7.1E+02**
5	VOC	Ethyl Benzene	100-41-4	D	132	2	1.5	3.00E-04	1.20E-03	PA-UT26 (4-4.5 ft)	1.97E+02	6.1E-06	9.2E-02	1.3E-02
5	VOC	Methylene Chloride	75-09-2	LC	132	11	8.3	4.80E-04	2.60E-03	PA-EE11 (13.5-15 ft)	1.64E+03	1.6E-06	1.3E-02	2.1E-01
5	VOC	Styrene	100-42-5		132	1	0.8	2.30E-04	2.30E-04	PA-UT26 (4-4.5 ft)	7.58E+02	3.0E-07	5.4E-01	4.2E-04
5	VOC	Tetrachloroethene	127-18-4	LC	132	1	0.8	2.40E-04	2.40E-04	PA-EE14 (8.5-10 ft)	1.26E+02	1.9E-06	7.8E-04	3.1E-01
5	VOC	Toluene	108-88-3	ID	133	19	14.3	1.10E-04	2.40E-03	PA-UT26 (4-4.5 ft)	2.91E+02	8.2E-06	2.7E-01	9.0E-03
5	VOC	Trichlorofluoromethane	75-69-4	ID	132	14	10.6	1.40E-04	3.50E-03	PA-EE18 (19.5-20.5 ft)	1.13E+03	3.1E-06	3.4E-03	1.0E+00
5	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	132	2	1.5	4.00E-04	2.70E-03	PA-UT26 (4-4.5 ft)	1.30E+02	2.1E-05	2.4E-02	1.1E-01
5	VOC	1,3,5-Trimethylbenzene	108-67-8	ID	132	2	1.5	1.10E-04	1.30E-03	PA-UT26 (4-4.5 ft)	2.38E+02	5.5E-06	3.8E-02	3.4E-02
5	VOC	Xylenes (total)	1330-20-7	ID	132	3	2.3	4.10E-04	5.70E-03	PA-UT26 (4-4.5 ft)	1.39E+02	4.1E-05	7.9E-03	7.2E-01
5	SVOC	Acenaphthene	83-32-9	ID	137	2	1.5	5.20E-03	6.60E-03	PA-EE45 (19-20 ft)	5.68E+01	1.2E-04		
5	SVOC	Acenaphthylene	208-96-8	D	137	2	1.5	5.10E-03	6.10E-03	PA-EE45 (19-20 ft)				
5	SVOC	Benzo(a)anthracene	56-55-3	B2	137	3	2.2	2.30E-02	1.20E-01	PA-UT27 (5-5.5 ft)	3.77E+01	3.2E-03	7.0E+01	1.7E-03
5	SVOC	Benzo(a)pyrene	50-32-8	B2	137	2	1.5	4.40E-02	1.10E-01	PA-UT27 (5-5.5 ft)	1.30E+01	8.4E-03	8.4E+01	1.3E-03
5	SVOC	Benzo(b)fluoranthene	205-99-2	B2	137	5	3.6	4.50E-03	1.40E-01	PA-UT27 (5-5.5 ft)	3.71E+00	3.8E-02	8.2E+00	1.7E-02
5	SVOC	Benzo(g,h,i)perylene	191-24-2	D	137	3	2.2	6.50E-03	1.00E-01	PA-UT27 (5-5.5 ft)				
5	SVOC	Benzo(k)fluoranthene	207-08-9	B2	137	2	1.5	4.40E-02	7.30E-02	PA-UT27 (5-5.5 ft)	3.44E+00	2.1E-02	1.3E+04	5.8E-06
5	SVOC	Benzoic Acid	65-85-0	D	136	3	2.2	2.00E-01	2.90E-01	PA-EE19 (29.5-30.5 ft)	1.40E+02	2.1E-03		
5	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	137	2	1.5	1.50E-01	4.90E-01	PA-EE6 (0-0.5 ft)	7.34E+04	6.7E-06		
5	SVOC	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	88-85-7	D	67	1	1.5	1.50E-02	1.50E-02	PA-EE15 (29.5-30.5 ft)	4.50E+02	3.3E-05		
5	SVOC	Chrysene	218-01-9	B2	137	3	2.2	5.00E-02	1.40E-01	PA-UT27 (5-5.5 ft)	4.47E-02	**3.1E+00**	2.8E+02	5.0E-04
5	SVOC	Dibenz(a,h)anthracene	53-70-3	B2	137	1	0.7	7.10E-03	7.10E-03	PA-EE48 (4-5 ft)	3.07E+03	2.3E-06	1.0E+05	6.9E-08
5	SVOC	Fluoranthene	206-44-0	D	137	4	2.9	7.00E-03	2.10E-01	PA-UT27 (5-5.5 ft)	6.46E+01	3.2E-03		
5	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	137	2	1.5	3.80E-02	8.20E-02	PA-UT27 (5-5.5 ft)	8.48E-01	9.7E-02	2.2E+03	3.7E-05
5	SVOC	Naphthalene	91-20-3	C	132	2	1.5	5.70E-04	4.20E-03	PA-UT26 (4-4.5 ft)	1.30E+02	3.2E-05	7.6E-03	5.5E-01
5	SVOC	Phenanthrene	85-01-8	D	137	3	2.2	5.60E-03	4.60E-02	PA-UT27 (5-5.5 ft)	3.31E+01	1.4E-03		
5	SVOC	Pyrene	129-00-0	NC	137	7	5.1	4.10E-03	1.90E-01	PA-UT27 (5-5.5 ft)	4.74E+01	4.0E-03		
5	PEST	Aldrin	309-00-2	B2	65	1	1.5	6.40E-04	6.40E-04	PA-EE18 (29.5-30.5 ft)	2.90E+03	2.2E-07	3.7E-01	1.7E-03
5	PEST	alpha-BHC	319-84-6	B2	65	1	1.5	2.00E-04	2.00E-04	PA-EE17 (1-2 ft)	6.89E+00	2.9E-05	7.9E-03	2.5E-02
5	PEST	delta-BHC	319-86-8	D	65	4	6.2	3.10E-04	7.20E-04	PA-EE18 (4.5-5.5 ft)	1.46E+02	4.9E-06		
5	PEST	gamma-BHC	58-89-9	B2-C	65	1	1.5	2.60E-03	2.60E-03	PA-EE17 (1-2 ft)	4.30E+00	6.1E-04		
5	PEST	4,4'-DDD	72-54-8	B2	65	1	1.5	3.20E-03	3.20E-03	PA-EE17 (1-2 ft)	6.76E+02	4.7E-06		
5	PEST	4,4'-DDE	72-55-9	B2	65	4	6.2	3.80E-04	2.00E-02	PA-UT26 (4-4.5 ft)	1.97E+03	1.0E-05		
5	PEST	4,4'-DDT	50-29-3	B2	66	5	7.6	3.00E-03	1.10E-02	PA-UT26 (4-4.5 ft)	1.91E+02	5.8E-05	9.4E+02	1.2E-05

Appendix B: Vapor Inhalation Soil Screening Summary by Sub-Area Yerington Mine Site, Nevada

Sub-Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	% Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Loc of MaxConc (ft)	Soil Saturation (mg/kg)	Ratio of Max Detect to Soil Saturation	Residential Vapor Intrusion Criteria at TCR 1E-6 or THQ 0.1 (mg/kg)	Ratio of Max Detect to Res VI Criteria
5	PEST	Dieldrin	60-57-1	B2	65	2	3.1	6.10E-04	7.60E-04	PA-EE20 (4.5-5.5 ft)	1.91E+01	4.0E-05	5.0E-02	1.5E-02
5	PEST	Endosulfan	115-29-7		65	2	3.1	3.80E-04	5.05E-04	PA-EE18 (19.5-20.5 ft)	5.63E-02	9.0E-03		
5	PEST	Endosulfan sulfate	1031-07-8	ID	65	7	10.8	3.20E-04	4.40E-03	PA-EE20 (19.5-20.5 ft)	8.54E+02	5.2E-06		
5	PEST	Endrin aldehyde	7421-93-4		64	1	1.6	5.40E-04	5.40E-04	PA-EE20 (19.5-20.5 ft)				
5	PEST	Heptachlor	76-44-8	B2	65	1	1.5	2.80E-04	2.80E-04	PA-EE18 (29.5-30.5 ft)	7.02E+02	4.0E-07	9.8E-02	2.8E-03
5	PEST	Heptachlor epoxide	1024-57-3	B2	65	3	4.6	4.30E-04	4.90E-04	PA-EE8 (0.5-1.5 ft)	3.46E+02	1.4E-06	4.8E-01	1.0E-03
5	PEST	Methoxychlor	72-43-5	D	65	2	3.1	5.50E-04	1.70E-03	PA-EE8 (0.5-1.5 ft)	3.37E+01	5.0E-05		
6	VOC	Benzene	71-43-2	A	117	2	1.7	7.50E-04	1.40E-03	PA-UT30 (1.5-2 ft)	3.71E+02	3.8E-06	8.2E-05	**1.7E+01**
6	VOC	n-Butylbenzene	104-51-8	ID	117	1	0.9	1.00E-04	1.00E-04	PA-TR3 (0.5-1 ft)	8.32E+01	1.2E-06		
6	VOC	sec-Butylbenzene	135-98-8		117	1	0.9	7.50E-05	7.50E-05	PA-HH6 (1-3 ft)	2.09E+03	3.6E-08		
6	VOC	tert-Butylbenzene	98-06-6		117	1	0.9	1.60E-04	1.60E-04	PA-HH6 (9.5-10.5 ft)	1.30E+02	1.2E-06		
6	VOC	Carbon Tetrachloride	56-23-5	LC	117	1	0.9	9.90E-05	9.90E-05	PA-HH11 (4.5-5.5 ft)	4.71E+02	2.1E-07	5.7E-05	**1.7E+00**
6	VOC	Chloroform	67-66-3	B2	117	1	0.9	1.20E-04	1.20E-04	PA-HH11 (24.5-25.5 ft)	1.27E+03	9.5E-08	3.0E-05	**4.0E+00**
6	VOC	Cumene	98-82-8	D	117	1	0.9	1.20E-04	1.20E-04	PA-TR3 (0.5-1 ft)	1.46E+02	8.2E-07	5.1E-02	2.3E-03
6	VOC	1,2-Dichloropropane	78-87-5	LC	117	1	0.9	1.60E-04	1.60E-04	PA-HH11 (19.5-20.5 ft)	4.73E+02	3.4E-07	1.5E-04	**1.1E+00**
6	VOC	1,3-Dichloropropane	142-28-9	ID	117	1	0.9	8.30E-05	8.30E-05	PA-UT12 (6-6.5 ft)	3.44E+05	2.4E-10		
6	VOC	Ethyl Benzene	100-41-4	D	117	1	0.9	4.60E-04	4.60E-04	PA-UT42 (6.5-7 ft)	1.97E+02	2.3E-06	9.2E-02	5.0E-03
6	VOC	Methylene Chloride	75-09-2	LC	117	12	10.3	3.30E-04	2.80E-03	PA-GG1 (3.5-5 ft)	1.64E+03	1.7E-06	1.3E-02	2.2E-01
6	VOC	n-Propylbenzene	103-65-1	ID	117	1	0.9	2.00E-04	2.00E-04	PA-UT42 (6.5-7 ft)	1.09E+02	1.8E-06		
6	VOC	Styrene	100-42-5		117	5	4.3	4.90E-05	1.30E-04	PA-HH6 (9.5-10.5 ft)	7.58E+02	1.7E-07	5.4E-01	2.4E-04
6	VOC	Toluene	108-88-3	ID	117	17	14.5	1.50E-04	5.60E-04	PA-HH8 (19.5-20.5 ft)	2.91E+02	1.9E-06	2.7E-01	2.1E-03
6	VOC	Trichloroethene	79-01-6	HC	117	1	0.9	3.40E-04	3.40E-04	PA-UT42 (6.5-7 ft)	6.06E+02	5.6E-07	6.4E-05	**5.3E+00**
6	VOC	Trichlorofluoromethane	75-69-4	ID	117	11	9.4	1.80E-04	9.80E-04	PA-HH8 (9.5-10.5 ft)	1.13E+03	8.7E-07	3.4E-03	2.9E-01
6	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	117	7	6.0	8.10E-05	1.70E-03	PA-GG1 (0.5-2.5 ft)	1.30E+02	1.3E-05	2.4E-02	6.9E-02
6	VOC	Xylenes (total)	1330-20-7	ID	113	1	0.9	3.50E-04	3.50E-04	PA-UT30 (1.5-2 ft)	1.39E+02	2.5E-06	7.9E-03	4.4E-02
6	SVOC	Acenaphthene	83-32-9	ID	119	2	1.7	9.60E-02	1.20E-01	PA-HH6 (1-3 ft)	5.68E+01	2.1E-03		
6	SVOC	Benzo(a)anthracene	56-55-3	B2	119	3	2.5	8.20E-03	2.90E-01	PA-HH6 (1-3 ft)	3.77E+01	7.7E-03	7.0E+01	4.1E-03
6	SVOC	Benzo(a)pyrene	50-32-8	B2	119	3	2.5	5.80E-03	2.70E-01	PA-HH6 (1-3 ft)	1.30E+01	2.1E-02	8.4E+01	3.2E-03
6	SVOC	Benzo(b)fluoranthene	205-99-2	B2	119	3	2.5	1.40E-02	3.80E-01	PA-TR3 (0.5-1 ft)	3.71E+00	1.0E-01	8.2E+00	4.6E-02
6	SVOC	Benzo(g,h,i)perylene	191-24-2	D	119	2	1.7	5.70E-03	1.00E-01	PA-HH6 (1-3 ft)				
6	SVOC	Benzo(k)fluoranthene	207-08-9	B2	119	3	2.5	4.80E-03	1.60E-01	PA-TR3 (0.5-1 ft)	3.44E+00	4.7E-02	1.3E+04	1.3E-05
6	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	123	3	2.4	1.20E-01	3.70E-01	PA-TR3 (0.5-1 ft)	7.34E+04	5.0E-06		
6	SVOC	Chrysene	218-01-9	B2	119	4	3.4	9.80E-03	9.00E-01	PA-TR3 (0.5-1 ft)	4.47E-02	**2.0E+01**	2.8E+02	3.2E-03
6	SVOC	Dibenz(a,h)anthracene	53-70-3	B2	119	2	1.7	2.50E-02	5.60E-02	PA-TR3 (0.5-1 ft)	3.07E+03	1.8E-05	1.0E+05	5.4E-07
6	SVOC	Dibenzofuran	132-64-9	D	123	1	0.8	1.10E-01	1.10E-01	PA-TR3 (0.5-1 ft)	4.70E+03	2.3E-05		
6	SVOC	Di-n-butylphthalate	84-74-2	D	123	1	0.8	2.30E-02	2.30E-02	PA-HH11 (4.5-5.5 ft)	1.27E+06	1.8E-08		
6	SVOC	Fluoranthene	206-44-0	D	119	6	5.0	5.40E-03	2.20E+00	PA-TR3 (0.5-1 ft)	6.46E+01	3.4E-02		
6	SVOC	Fluorene	86-73-7	D	119	2	1.7	8.30E-02	1.30E-01	PA-TR3 (0.5-1 ft)	8.09E+01	1.6E-03		
6	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	119	2	1.7	4.90E-03	1.30E-01	PA-HH6 (1-3 ft)	8.48E-01	1.5E-01	2.2E+03	5.9E-05
6	SVOC	2-Methylnaphthalene	91-57-6	ID	123	1	0.8	3.70E-02	3.70E-02	PA-TR3 (0.5-1 ft)	2.26E+02	1.6E-04		
6	SVOC	Naphthalene	91-20-3	C	117	1	0.9	2.50E-04	2.50E-04	PA-UT30 (1.5-2 ft)	1.30E+02	1.9E-06	7.6E-03	3.3E-02
6	SVOC	Phenanthrene	85-01-8	D	119	5	4.2	5.30E-03	3.20E+00	PA-TR3 (0.5-1 ft)	3.31E+01	9.7E-02		
6	SVOC	Pyrene	129-00-0	NC	119	6	5.0	4.60E-03	2.60E+00	PA-TR3 (0.5-1 ft)	4.74E+01	5.5E-02		
6	PEST	beta-BHC	319-85-7	C	66	1	1.5	4.30E-04	4.30E-04	PA-HH6 (1-3 ft)	1.28E+00	3.4E-04	6.2E-01	6.9E-04
6	PEST	4,4'-DDE	72-55-9	B2	66	1	1.5	5.00E-03	5.00E-03	PA-TR3 (0.5-1 ft)	1.97E+03	2.5E-06		

AAppendix B: Vapor Inhalation Soil Screening Summary by Sub-Area Yerington Mine Site, Nevada

Sub-Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	% Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Loc of MaxConc (ft)	Soil Saturation (mg/kg)	Ratio of Max Detect to Soil Saturation	Residential Vapor Intrusion Criteria at TCR 1E-6 or THQ 0.1 (mg/kg)	Ratio of Max Detect to Res VI Criteria
6	PEST	4,4'-DDT	50-29-3	B2	66	2	3.0	9.30E-03	1.10E-02	PA-UT42 (6.5-7 ft)	1.91E+02	5.8E-05	9.4E+02	1.2E-05
6	PEST	Methoxychlor	72-43-5	D	66	1	1.5	1.50E-03	1.50E-03	PA-HH12 (4.5-5.5 ft)	3.37E+01	4.5E-05		
6	HERB	MCPP (2-(2-methyl-4-chlorophenoxy) propanoic acid)	93-65-2		62	2	3.2	2.40E+00	6.70E+00	PA-GG1 (8.5-10 ft)				
7	VOC	Dichlorodifluoromethane	75-71-8	ID	40	6	15.0	1.70E-04	4.70E-04	PA-WW2 (14-15 ft)	3.48E+03	1.4E-07	7.1E-04	6.6E-01
7	VOC	Ethyl Benzene	100-41-4	D	40	3	7.5	1.60E-04	2.40E-04	PA-WW3 (4-5 ft)	1.97E+02	1.2E-06	9.2E-02	2.6E-03
7	VOC	Toluene	108-88-3	ID	40	10	25.0	1.70E-04	1.10E-03	PA-WW3 (4-5 ft)	2.91E+02	3.8E-06	2.7E-01	4.1E-03
7	VOC	Trichlorofluoromethane	75-69-4	ID	40	8	20.0	8.10E-05	1.10E-03	PA-WW4 (19-20 ft)	1.13E+03	9.8E-07	3.4E-03	3.2E-01
7	VOC	Xylenes (total)	1330-20-7	ID	40	1	2.5	9.80E-04	9.80E-04	PA-WW3 (4-5 ft)	1.39E+02	7.0E-06	7.9E-03	1.2E-01
7	SVOC	Diethylphthalate	84-66-2	D	45	3	6.7	2.00E-02	2.60E-02	PA-WW1 (14-15 ft)	1.60E+03	1.6E-05		
7	SVOC	Di-n-butylphthalate	84-74-2	D	45	2	4.4	4.20E-02	5.50E-02	PA-WW6 (3.5-5 ft)	1.27E+06	4.3E-08		
7	PEST	Aldrin	309-00-2	B2	40	2	5.0	2.50E-04	2.70E-04	PA-WW7 (19-20 ft)	2.90E+03	9.3E-08	3.7E-01	7.3E-04
7	PEST	alpha-BHC	319-84-6	B2	40	10	25.0	5.40E-04	1.00E-02	PA-WW10 (3.5-5 ft)	6.89E+00	1.5E-03	7.9E-03	**1.3E+00**
7	PEST	delta-BHC	319-86-8	D	40	1	2.5	1.00E-03	1.00E-03	PA-WW9 (9-10 ft)	1.46E+02	6.8E-06		
7	PEST	4,4'-DDD	72-54-8	B2	40	1	2.5	4.20E-04	4.20E-04	PA-WW2 (9-10 ft)	6.76E+02	6.2E-07		
7	PEST	4,4'-DDE	72-55-9	B2	40	1	2.5	4.00E-04	4.00E-04	PA-WW2 (4-5 ft)	1.97E+03	2.0E-07		
7	PEST	4,4'-DDT	50-29-3	B2	40	7	17.5	1.50E-03	5.70E-03	PA-WW4 (9-10 ft)	1.91E+02	3.0E-05	9.4E+02	6.0E-06
7	PEST	Heptachlor	76-44-8	B2	40	2	5.0	4.10E-04	1.40E-03	PA-WW4 (9-10 ft)	7.02E+02	2.0E-06	9.8E-02	1.4E-02
8	VOC	Benzene	71-43-2	A	127	11	8.7	5.30E-05	2.20E-03	PA-UT29 (1.5-2 ft)	3.71E+02	5.9E-06	8.2E-05	**2.7E+01**
8	VOC	Bromoform	75-25-2	B2	127	1	0.8	5.70E-04	5.70E-04	PA-FFF6 (0.5-2.5 ft)	7.10E+02	8.0E-07	9.3E-03	6.2E-02
8	VOC	Cumene	98-82-8	D	127	1	0.8	3.10E-04	3.10E-04	PA-FFF12 (20-21 ft)	1.46E+02	2.1E-06	5.1E-02	6.0E-03
8	VOC	p-Cymene	99-87-6	ID	127	1	0.8	2.60E-04	2.60E-04	PA-FFF6 (0.5-2.5 ft)	1.00E+02	2.6E-06		
8	VOC	Dichlorodifluoromethane	75-71-8	ID	127	1	0.8	1.10E-04	1.10E-04	PA-FFF6 (13.5-15 ft)	3.48E+03	3.2E-08	7.1E-04	1.5E-01
8	VOC	1,1-Dichloroethene	75-35-4	C	127	1	0.8	1.30E-04	1.30E-04	PA-FFF1 (14-15 ft)	8.64E+02	1.5E-07	1.4E-03	9.2E-02
8	VOC	trans-1,2-Dichloroethene	156-60-5	ID	127	1	0.8	1.30E-04	1.30E-04	PA-FFF1 (14-15 ft)	9.16E+02	1.4E-07		
8	VOC	Ethyl Benzene	100-41-4	D	127	1	0.8	4.30E-04	4.30E-04	PA-UT41 (6.5-7 ft)	1.97E+02	2.2E-06	9.2E-02	4.7E-03
8	VOC	n-Propylbenzene	103-65-1	ID	127	1	0.8	1.70E-04	1.70E-04	PA-UT41 (6.5-7 ft)	1.09E+02	1.6E-06		
8	VOC	Styrene	100-42-5		127	4	3.1	2.50E-04	3.10E-04	PA-FFF2 (24-25 ft)	7.58E+02	4.1E-07	5.4E-01	5.7E-04
8	VOC	1,1,2,2-Tetrachloroethane	79-34-5	LC	127	1	0.8	2.40E-04	2.40E-04	PA-FFF12 (20-21 ft)	9.83E+02	2.4E-07		
8	VOC	Tetrachloroethene	127-18-4	LC	127	1	0.8	7.30E-05	7.30E-05	PA-FFF8 (9-10 ft)	1.26E+02	5.8E-07	7.8E-04	9.3E-02
8	VOC	Toluene	108-88-3	ID	127	27	21.3	1.20E-04	9.10E-04	PA-FFF4 (23.5-25 ft)	2.91E+02	3.1E-06	2.7E-01	3.4E-03
8	VOC	1,1,2-Trichloroethane	79-00-5	C	127	1	0.8	6.40E-04	6.40E-04	PA-FFF6 (0.5-2.5 ft)	8.36E+02	7.7E-07	2.2E-04	**2.9E+00**
8	VOC	Trichloroethene	79-01-6	HC	127	1	0.8	3.70E-04	3.70E-04	PA-UT41 (6.5-7 ft)	6.06E+02	6.1E-07	6.4E-05	**5.8E+00**
8	VOC	Trichlorofluoromethane	75-69-4	ID	127	14	11.0	1.40E-04	2.80E-03	PA-FFF18 (18.5-20 ft)	1.13E+03	2.5E-06	3.4E-03	8.2E-01
8	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	126	4	3.2	5.40E-05	5.40E-04	PA-FFF6 (0.5-2.5 ft)	1.30E+02	4.2E-06	2.4E-02	2.2E-02
8	VOC	1,3,5-Trimethylbenzene	108-67-8	ID	127	1	0.8	3.00E-04	3.00E-04	PA-FFF12 (20-21 ft)	2.38E+02	1.3E-06	3.8E-02	7.9E-03
8	VOC	Xylenes (total)	1330-20-7	ID	127	1	0.8	6.10E-04	6.10E-04	PA-UT29 (1.5-2 ft)	1.39E+02	4.4E-06	7.9E-03	7.7E-02
8	SVOC	Acenaphthylene	208-96-8	D	127	1	0.8	5.80E-03	5.80E-03	PA-FFF20 (19-20 ft)				
8	SVOC	Benzo(b)fluoranthene	205-99-2	B2	127	1	0.8	4.20E-03	4.20E-03	PA-FFF19 (0-1 ft)	3.71E+00	1.1E-03	8.2E+00	5.1E-04
8	SVOC	Benzoic Acid	65-85-0	D	127	2	1.6	2.70E-01	5.10E-01	PA-FFF8 (9-10 ft)	1.40E+02	3.6E-03		
8	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	127	2	1.6	5.30E-02	6.30E-01	PA-UT29 (1.5-2 ft)	7.34E+04	8.6E-06		
8	SVOC	Chrysene	218-01-9	B2	127	2	1.6	6.80E-03	1.10E-02	PA-FFF21 (0-1 ft)	4.47E-02	2.5E-01	2.8E+02	3.9E-05
8	SVOC	Diethylphthalate	84-66-2	D	127	2	1.6	1.40E-02	1.50E-02	PA-FFF18 (23.5-25 ft)	1.60E+03	9.4E-06		
8	SVOC	Di-n-butylphthalate	84-74-2	D	127	6	4.7	1.40E-02	1.60E-02	PA-FFF4 (3.5-5 ft)	1.27E+06	1.3E-08		
8	SVOC	Fluoranthene	206-44-0	D	127	2	1.6	5.20E-03	1.90E-02	PA-FFF19 (0-1 ft)	6.46E+01	2.9E-04		
8	SVOC	Fluorene	86-73-7	D	127	3	2.4	2.50E-02	2.70E-02	PA-FFF13 (0.5-2.5 ft)	8.09E+01	3.3E-04		

Appendix B: Vapor Inhalation Soil Screening Summary by Sub-Area Yerington Mine Site, Nevada

Sub-Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	% Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Loc of MaxConc (ft)	Soil Saturation (mg/kg)	Ratio of Max Detect to Soil Saturation	Residential Vapor Intrusion Criteria at TCR 1E-6 or THQ 0.1 (mg/kg)	Ratio of Max Detect to Res VI Criteria
8	SVOC	Isophorone	78-59-1	C	127	1	0.8	2.00E-02	2.00E-02	PA-FFF11 (18.5-20 ft)	1.67E+03	1.2E-05	4.5E+01	4.5E-04
8	SVOC	Naphthalene	91-20-3	C	127	1	0.8	4.90E-04	4.90E-04	PA-UT29 (1.5-2 ft)	1.30E+02	3.8E-06	7.6E-03	6.4E-02
8	SVOC	N-Nitroso-di-n-propylamine	621-64-7	B2	127	1	0.8	4.70E-01	4.70E-01	PA-FFF20 (3-5 ft)	5.64E+02	8.3E-04		
8	SVOC	Phenanthrene	85-01-8	D	127	1	0.8	2.30E-02	2.30E-02	PA-FFF19 (0-1 ft)	3.31E+01	7.0E-04		
8	SVOC	Pyrene	129-00-0	NC	127	1	0.8	1.40E-02	1.40E-02	PA-FFF19 (0-1 ft)	4.74E+01	3.0E-04		
8	PEST	alpha-BHC	319-84-6	B2	108	8	7.4	1.80E-04	1.80E-03	PA-FFF8 (4-5 ft)	6.89E+00	2.6E-04	7.9E-03	2.3E-01
8	PEST	beta-BHC	319-85-7	C	108	1	0.9	6.00E-03	6.00E-03	PA-UT29 (1.5-2 ft)	1.28E+00	4.7E-03	6.2E-01	9.6E-03
8	PEST	gamma-BHC	58-89-9	B2-C	108	2	1.9	2.80E-04	1.00E-03	PA-FFF8 (4-5 ft)	4.30E+00	2.3E-04		
8	PEST	Chlordane (total)	57-74-9	B2	108	3	2.8	7.25E-04	7.85E-04	PA-FFF7 (5-6 ft)			2.7E+00	2.9E-04
8	PEST	4,4'-DDD	72-54-8	B2	108	2	1.9	1.70E-03	1.90E-03	PA-FFF7 (24-25 ft)	6.76E+02	2.8E-06		
8	PEST	4,4'-DDE	72-55-9	B2	108	6	5.6	2.00E-04	1.50E-03	PA-FFF7 (24-25 ft)	1.97E+03	7.6E-07		
8	PEST	4,4'-DDT	50-29-3	B2	108	4	3.7	1.60E-03	1.90E-02	PA-UT29 (1.5-2 ft)	1.91E+02	9.9E-05	9.4E+02	2.0E-05
8	PEST	Dieldrin	60-57-1	B2	108	1	0.9	3.50E-04	3.50E-04	PA-FFF8 (4-5 ft)	1.91E+01	1.8E-05	5.0E-02	7.0E-03
8	PEST	Endosulfan	115-29-7		108	4	3.7	3.65E-04	5.45E-04	PA-FFF8 (4-5 ft)	5.63E-02	9.7E-03		
8	PEST	Endosulfan sulfate	1031-07-8	ID	108	5	4.6	3.30E-04	3.30E-03	PA-FFF7 (24-25 ft)	8.54E+02	3.9E-06		
8	PEST	Endrin	72-20-8	D	108	1	0.9	4.40E-04	4.40E-04	PA-FFF8 (9-10 ft)	9.23E+00	4.8E-05		
8	PEST	Endrin aldehyde	7421-93-4		108	3	2.8	5.30E-04	1.10E-03	PA-FFF9 (0.5-2.5 ft)				
8	PEST	Endrin ketone	53494-70-5		108	2	1.9	1.70E-03	3.30E-03	PA-FFF9 (0.5-2.5 ft)				
8	PEST	Heptachlor	76-44-8	B2	108	2	1.9	2.80E-04	9.60E-03	PA-UT41 (6.5-7 ft)	7.02E+02	1.4E-05	9.8E-02	9.8E-02
8	PEST	Heptachlor epoxide	1024-57-3	B2	108	1	0.9	2.30E-03	2.30E-03	PA-FFF16 (0.5-2.5 ft)	3.46E+02	6.7E-06	4.8E-01	4.8E-03
8	PEST	Methoxychlor	72-43-5	D	108	5	4.6	6.00E-04	1.60E-03	PA-FFF9 (0.5-2.5 ft)	3.37E+01	4.7E-05		
8	PCB	PCBs (total)	1336-36-3	B2	108	1	0.9	8.90E-03	8.90E-03	PA-FFF5 (0.5-2.5 ft)	8.30E+01	1.1E-04	1.3E-01	7.1E-02
8	HERB	Dicamba	1918-00-9		108	2	1.9	1.80E-02	2.40E-02	PA-FFF13 (13.5-15 ft)				
8	HERB	MCPP (2-(2-methyl-4-chlorophenoxy) propanoic acid)	93-65-2		108	3	2.8	8.70E-01	1.00E+00	PA-FFF12 (3.5-5 ft)				
8	HERB	MCPA (2-Methyl-4-chlorophenoxy acetic acid)	94-74-6		108	4	3.7	1.40E+00	1.50E+00	PA-FFF17 (6.5-8 ft)				
8	HERB	2,4,5-T	93-76-5		108	4	3.7	1.10E-02	1.20E-02	PA-FFF11 (0.5-2.5 ft)	1.11E+03	1.1E-05		
8	HERB	2,4,5-TP	93-72-1	D	108	1	0.9	1.20E-02	1.20E-02	PA-FFF12 (23.5-25 ft)	1.09E+04	1.1E-06		
9	VOC	Benzene	71-43-2	A	198	9	4.5	5.00E-05	9.20E-04	PA-EEE20 (9-10 ft)	3.71E+02	2.5E-06	8.2E-05	**1.1E+01**
9	VOC	Ethyl Benzene	100-41-4	D	197	10	5.1	1.70E-04	1.30E-03	PA-EEE6 (0.5-2.5 ft)	1.97E+02	6.6E-06	9.2E-02	1.4E-02
9	VOC	Methylene Chloride	75-09-2	LC	198	2	1.0	3.10E-04	5.80E-04	PA-EEE12 (23.5-25 ft)	1.64E+03	3.5E-07	1.3E-02	4.6E-02
9	VOC	Styrene	100-42-5		185	4	2.2	2.40E-04	2.90E-04	PA-EEE12 (8.5-10 ft)	7.58E+02	3.8E-07	5.4E-01	5.3E-04
9	VOC	Tetrachloroethene	127-18-4	LC	197	6	3.0	1.80E-04	1.00E-02	PA-EEE20 (9-10 ft)	1.26E+02	8.0E-05	7.8E-04	**1.3E+01**
9	VOC	Toluene	108-88-3	ID	197	13	6.6	1.20E-04	1.00E-02	PA-EEE6 (0.5-2.5 ft)	2.91E+02	3.4E-05	2.7E-01	3.8E-02
9	VOC	Trichlorofluoromethane	75-69-4	ID	198	62	31.3	7.30E-05	7.90E-03	PA-EEE15 (0.5-2.5 ft)	1.13E+03	7.0E-06	3.4E-03	**2.3E+00**
9	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	196	3	1.5	8.50E-05	1.10E-04	PA-EEE14 (0.5-2.5 ft)	1.30E+02	8.5E-07	2.4E-02	4.5E-03
9	VOC	Xylenes (total)	1330-20-7	ID	197	6	3.0	3.80E-04	5.50E-03	PA-EEE6 (0.5-2.5 ft)	1.39E+02	3.9E-05	7.9E-03	6.9E-01
9	SVOC	Acenaphthene	83-32-9	ID	206	1	0.5	6.50E-03	6.50E-03	PA-EEE1C (9-10 ft)	5.68E+01	1.1E-04		
9	SVOC	Acenaphthylene	208-96-8	D	206	4	1.9	5.00E-03	3.20E-02	PA-JJ1 (9-10 ft)				
9	SVOC	Benzo(a)anthracene	56-55-3	B2	206	2	1.0	5.30E-03	1.80E-01	PA-EEE1 (0.5-2.5 ft)	3.77E+01	4.8E-03	7.0E+01	2.6E-03
9	SVOC	Benzo(a)pyrene	50-32-8	B2	206	2	1.0	5.60E-03	1.70E-01	PA-EEE1 (0.5-2.5 ft)	1.30E+01	1.3E-02	8.4E+01	2.0E-03
9	SVOC	Benzo(b)fluoranthene	205-99-2	B2	206	2	1.0	6.70E-03	1.30E-02	PA-EEE28 (0-1 ft)	3.71E+00	3.5E-03	8.2E+00	1.6E-03
9	SVOC	Benzo(g,h,i)perylene	191-24-2	D	206	3	1.5	6.30E-03	1.00E-01	PA-EEE1 (0.5-2.5 ft)				
9	SVOC	Benzo(k)fluoranthene	207-08-9	B2	206	1	0.5	4.40E-03	4.40E-03	PA-EEE28 (0-1 ft)	3.44E+00	1.3E-03	1.3E+04	3.5E-07
9	SVOC	Benzoic Acid	65-85-0	D	207	2	1.0	1.90E-01	2.10E-01	PA-EEE28 (0-1 ft)	1.40E+02	1.5E-03		
9	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	207	11	5.3	1.80E-02	7.90E-01	PA-EEE23 (0-1 ft)	7.34E+04	1.1E-05		

AAppendix B: Vapor Inhalation Soil Screening Summary by Sub-Area Yerington Mine Site, Nevada

Sub-Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	% Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Loc of MaxConc (ft)	Soil Saturation (mg/kg)	Ratio of Max Detect to Soil Saturation	Residential Vapor Intrusion Criteria at TCR 1E-6 or THQ 0.1 (mg/kg)	Ratio of Max Detect to Res VI Criteria
9	SVOC	Butylbenzylphthalate	85-68-7	C	207	1	0.5	2.60E-02	2.60E-02	PA-EEE17 (18.5-20 ft)	7.25E+02	3.6E-05		
9	SVOC	Chrysene	218-01-9	B2	206	4	1.9	5.80E-03	2.20E-01	PA-EEE1 (0.5-2.5 ft)	4.47E-02	**4.9E+00**	2.8E+02	7.8E-04
9	SVOC	Diethylphthalate	84-66-2	D	207	7	3.4	1.40E-02	4.20E+00	PA-EEE11 (8.5-10 ft)	1.60E+03	2.6E-03		
9	SVOC	Di-n-butylphthalate	84-74-2	D	207	2	1.0	3.70E-02	5.00E-02	PA-EEE17 (13.5-15 ft)	1.27E+06	3.9E-08		
9	SVOC	Fluoranthene	206-44-0	D	206	3	1.5	1.60E-02	2.70E-01	PA-EEE1 (0.5-2.5 ft)	6.46E+01	4.2E-03		
9	SVOC	Fluorene	86-73-7	D	206	2	1.0	4.10E-03	2.60E-02	PA-EEE14 (3.5-5 ft)	8.09E+01	3.2E-04		
9	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	206	3	1.5	5.00E-03	9.90E-02	PA-EEE1 (0.5-2.5 ft)	8.48E-01	1.2E-01	2.2E+03	4.5E-05
9	SVOC	Naphthalene	91-20-3	C	158	3	1.9	5.30E-05	2.10E-03	PA-EEE3 (0.5-2.5 ft)	1.30E+02	1.6E-05	7.6E-03	2.7E-01
9	SVOC	Pentachlorophenol	87-86-5	LC	207	1	0.5	1.40E-01	1.40E-01	PA-EEE1 (0.5-2.5 ft)	4.66E+03	3.0E-05		
9	SVOC	Phenanthrene	85-01-8	D	206	5	2.4	4.70E-03	7.70E-01	PA-EEE13 (0.5-1.5 ft)	3.31E+01	2.3E-02		
9	SVOC	Pyrene	129-00-0	NC	206	4	1.9	5.40E-03	1.10E+00	PA-EEE13 (0.5-1.5 ft)	4.74E+01	2.3E-02		
9	PEST	Aldrin	309-00-2	B2	132	3	2.3	9.20E-04	3.80E-02	PA-EEE20 (9-10 ft)	2.90E+03	1.3E-05	3.7E-01	1.0E-01
9	PEST	alpha-BHC	319-84-6	B2	132	15	11.4	2.90E-04	5.30E-02	PA-EEE20 (9-10 ft)	6.89E+00	7.7E-03	7.9E-03	**6.7E+00**
9	PEST	beta-BHC	319-85-7	C	132	7	5.3	1.30E-03	6.70E-02	PA-EEE20 (9-10 ft)	1.28E+00	5.2E-02	6.2E-01	1.1E-01
9	PEST	delta-BHC	319-86-8	D	132	10	7.6	3.60E-04	2.60E-02	PA-EEE20 (9-10 ft)	1.46E+02	1.8E-04		
9	PEST	gamma-BHC	58-89-9	B2-C	132	7	5.3	8.60E-04	7.50E-03	PA-EEE13 (0.5-1.5 ft)	4.30E+00	1.7E-03		
9	PEST	4,4'-DDD	72-54-8	B2	132	7	5.3	1.00E-02	1.70E-01	PA-EEE2 (0.5-2.5 ft)	6.76E+02	2.5E-04		
9	PEST	4,4'-DDE	72-55-9	B2	132	12	9.1	8.00E-04	2.50E-01	PA-EEE1 (0.5-2.5 ft)	1.97E+03	1.3E-04		
9	PEST	4,4'-DDT	50-29-3	B2	132	14	10.6	9.00E-04	2.00E+00	PA-EEE1 (0.5-2.5 ft)	1.91E+02	1.0E-02	9.4E+02	2.1E-03
9	PEST	Dieldrin	60-57-1	B2	132	2	1.5	7.90E-04	7.20E-03	PA-EEE20 (4-5 ft)	1.91E+01	3.8E-04	5.0E-02	1.4E-01
9	PEST	Endosulfan	115-29-7		132	1	0.8	1.36E-02	1.36E-02	PA-EEE20 (4-5 ft)	5.63E-02	2.4E-01		
9	PEST	Endrin	72-20-8	D	132	2	1.5	9.00E-04	3.70E-03	PA-EEE14 (0.5-2.5 ft)	9.23E+00	4.0E-04		
9	PEST	Heptachlor	76-44-8	B2	132	4	3.0	6.70E-04	3.50E-02	PA-EEE20 (4-5 ft)	7.02E+02	5.0E-05	9.8E-02	3.6E-01
9	PEST	Heptachlor epoxide	1024-57-3	B2	132	2	1.5	2.90E-04	7.80E-04	PA-EEE15 (0.5-2.5 ft)	3.46E+02	2.3E-06	4.8E-01	1.6E-03
9	HERB	2,4-D	94-75-7		119	2	1.7	1.10E-02	7.50E-02	PA-EEE13 (0.5-1.5 ft)	7.56E+00	9.9E-03		
9	HERB	MCPP (2-(2-methyl-4-chlorophenoxy) propanoic acid)	93-65-2		116	1	0.9	1.40E+00	1.40E+00	PA-EEE9 (13.5-15 ft)				
10	VOC	Acetone	67-64-1	ID	18	2	11.1	4.20E-03	1.10E-02	PA-HHH9 (0.5-2.5 ft)	1.79E+04	6.2E-07	1.9E+01	5.6E-04
10	VOC	Benzene	71-43-2	A	183	4	2.2	6.20E-05	2.60E-03	PA-UT28 (1.5-2 ft)	3.71E+02	7.0E-06	8.2E-05	**3.2E+01**
10	VOC	Bromomethane	74-83-9	ID	183	1	0.5	1.60E-03	1.60E-03	PA-KK6 (0-1 ft)	2.76E+03	5.8E-07	4.3E-05	**3.7E+01**
10	VOC	2-Butanone	78-93-3	ID	18	1	5.6	2.90E-03	2.90E-03	PA-HHH12 (0.5-2.5 ft)	5.53E+03	5.2E-07	2.0E+00	1.4E-03
10	VOC	Chloroethane	75-00-3	LC	182	1	0.5	2.60E-03	2.60E-03	PA-HHH12 (0.5-2.5 ft)	8.87E+02	2.9E-06	6.5E-02	4.0E-02
10	VOC	Chloromethane	74-87-3	D	183	2	1.1	1.20E-03	1.80E-03	PA-KK6 (0-1 ft)	4.80E+03	3.7E-07	8.8E-04	**2.0E+00**
10	VOC	p-Cymene	99-87-6	ID	184	1	0.5	3.80E-03	3.80E-03	PA-II4 (3-5 ft)	1.00E+02	3.8E-05		
10	VOC	Dibromochloromethane	124-48-1	C	183	2	1.1	3.90E-03	4.30E-03	PA-HHH12 (9-10 ft)	2.75E+02	1.6E-05		
10	VOC	1,3-Dichloropropane	142-28-9	ID	183	1	0.5	5.90E-05	5.90E-05	PA-HHH1 (19-20 ft)	3.44E+05	1.7E-10		
10	VOC	Ethyl Benzene	100-41-4	D	183	1	0.5	4.10E-04	4.10E-04	PA-II3 (0.5-2.5 ft)	1.97E+02	2.1E-06	9.2E-02	4.4E-03
10	VOC	Methylene Chloride	75-09-2	LC	183	15	8.2	3.20E-04	7.60E-04	PA-KK1 (14-15 ft)	1.64E+03	4.6E-07	1.3E-02	6.0E-02
10	VOC	Toluene	108-88-3	ID	183	5	2.7	1.80E-04	2.60E-03	PA-HHH9 (19-20 ft)	2.91E+02	8.9E-06	2.7E-01	9.8E-03
10	VOC	Trichloroethene	79-01-6	HC	183	4	2.2	1.10E-04	1.60E-04	PA-HHH11 (14-15 ft)	6.06E+02	2.6E-07	6.4E-05	**2.5E+00**
10	VOC	Trichlorofluoromethane	75-69-4	ID	183	26	14.2	5.40E-05	4.90E-03	PA-II2 (0.5-2.5 ft)	1.13E+03	4.4E-06	3.4E-03	**1.4E+00**
10	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	183	1	0.5	3.40E-04	3.40E-04	PA-UT28 (1.5-2 ft)	1.30E+02	2.6E-06	2.4E-02	1.4E-02
10	VOC	1,3,5-Trimethylbenzene	108-67-8	ID	183	1	0.5	9.30E-05	9.30E-05	PA-UT28 (1.5-2 ft)	2.38E+02	3.9E-07	3.8E-02	2.5E-03
10	VOC	Xylenes (total)	1330-20-7	ID	165	2	1.2	8.30E-04	2.00E-03	PA-II3 (0.5-2.5 ft)	1.39E+02	1.4E-05	7.9E-03	2.5E-01
10	SVOC	Acenaphthene	83-32-9	ID	186	1	0.5	6.60E-03	6.60E-03	PA-KK7 (1.5-2.5 ft)	5.68E+01	1.2E-04		
10	SVOC	Acenaphthylene	208-96-8	D	186	1	0.5	6.20E-03	6.20E-03	PA-KK7 (1.5-2.5 ft)				

Appendix B: Vapor Inhalation Soil Screening Summary by Sub-Area Yerington Mine Site, Nevada

Sub-Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	% Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Loc of MaxConc (ft)	Soil Saturation (mg/kg)	Ratio of Max Detect to Soil Saturation	Residential Vapor Intrusion Criteria at TCR 1E-6 or THQ 0.1 (mg/kg)	Ratio of Max Detect to Res VI Criteria
10	SVOC	Benzo(a)anthracene	56-55-3	B2	186	2	1.1	1.50E-02	6.40E-02	PA-HHH6 (4-5 ft)	3.77E+01	1.7E-03	7.0E+01	9.1E-04
10	SVOC	Benzo(a)pyrene	50-32-8	B2	186	1	0.5	1.20E-02	1.20E-02	PA-KK4 (0-1 ft)	1.30E+01	9.2E-04	8.4E+01	1.4E-04
10	SVOC	Benzo(b)fluoranthene	205-99-2	B2	186	2	1.1	4.90E-03	2.40E-02	PA-KK4 (0-1 ft)	3.71E+00	6.5E-03	8.2E+00	2.9E-03
10	SVOC	Benzo(g,h,i)perylene	191-24-2	D	186	1	0.5	8.10E-03	8.10E-03	PA-KK4 (0-1 ft)				
10	SVOC	Benzo(k)fluoranthene	207-08-9	B2	186	1	0.5	7.70E-03	7.70E-03	PA-KK4 (0-1 ft)	3.44E+00	2.2E-03	1.3E+04	6.1E-07
10	SVOC	Benzoic Acid	65-85-0	D	184	4	2.2	2.60E-01	3.20E-01	PA-II2 (8.5-10 ft)	1.40E+02	2.3E-03		
10	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	186	4	2.2	4.60E-02	1.50E+00	PA-UT31 (0.5-1 ft)	7.34E+04	2.0E-05		
10	SVOC	Chrysene	218-01-9	B2	186	4	2.2	5.90E-03	7.00E-02	PA-HHH6 (4-5 ft)	4.47E-02	**1.6E+00**	2.8E+02	2.5E-04
10	SVOC	Fluoranthene	206-44-0	D	186	4	2.2	6.90E-03	2.40E-01	PA-HHH6 (4-5 ft)	6.46E+01	3.7E-03		
10	SVOC	Fluorene	86-73-7	D	186	2	1.1	2.50E-02	2.70E-02	PA-HHH9 (0.5-2.5 ft)	8.09E+01	3.3E-04		
10	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	186	2	1.1	9.30E-03	1.70E-02	PA-HHH6 (4-5 ft)	8.48E-01	2.0E-02	2.2E+03	7.7E-06
10	SVOC	Naphthalene	91-20-3	C	183	2	1.1	2.50E-04	5.60E-04	PA-UT28 (1.5-2 ft)	1.30E+02	4.3E-06	7.6E-03	7.3E-02
10	SVOC	Phenanthrene	85-01-8	D	186	5	2.7	5.90E-03	1.40E-01	PA-HHH6 (4-5 ft)	3.31E+01	4.2E-03		
10	SVOC	Pyrene	129-00-0	NC	186	4	2.2	9.10E-03	1.40E-01	PA-HHH6 (4-5 ft)	4.74E+01	3.0E-03		
10	PEST	alpha-BHC	319-84-6	B2	121	1	0.8	2.90E-04	2.90E-04	PA-KK3 (4-5 ft)	6.89E+00	4.2E-05	7.9E-03	3.6E-02
10	PEST	beta-BHC	319-85-7	C	121	1	0.8	5.30E-04	5.30E-04	PA-II2 (0.5-2.5 ft)	1.28E+00	4.2E-04	6.2E-01	8.5E-04
10	PEST	delta-BHC	319-86-8	D	121	1	0.8	6.90E-04	6.90E-04	PA-II2 (0.5-2.5 ft)	1.46E+02	4.7E-06		
10	PEST	4,4'-DDE	72-55-9	B2	121	1	0.8	1.10E-03	1.10E-03	PA-HHH1 (0.5-2.5 ft)	1.97E+03	5.6E-07		
10	PEST	4,4'-DDT	50-29-3	B2	121	4	3.3	2.30E-03	6.30E-03	PA-UT28 (1.5-2 ft)	1.91E+02	3.3E-05	9.4E+02	6.7E-06
10	PEST	Endosulfan	115-29-7		121	1	0.8	8.60E-04	8.60E-04	PA-HHH1 (0.5-2.5 ft)	5.63E-02	1.5E-02		
10	PEST	Endosulfan sulfate	1031-07-8	ID	121	1	0.8	1.10E-03	1.10E-03	PA-HHH3 (4-5 ft)	8.54E+02	1.3E-06		
10	PEST	Heptachlor epoxide	1024-57-3	B2	121	1	0.8	7.10E-04	7.10E-04	PA-II2 (0.5-2.5 ft)	3.46E+02	2.1E-06	4.8E-01	1.5E-03
10	PEST	Methoxychlor	72-43-5	D	121	1	0.8	4.10E-04	4.10E-04	PA-HHH3 (4-5 ft)	3.37E+01	1.2E-05		
11	VOC	Acetone	67-64-1	ID	6	1	16.7	4.20E-03	4.20E-03	PA-HHH17 (24-25 ft)	1.79E+04	2.4E-07	1.9E+01	2.2E-04
11	VOC	Benzene	71-43-2	A	225	1	0.4	6.40E-05	6.40E-05	PA-CCC4 (19.5-20.5 ft)	3.71E+02	1.7E-07	8.2E-05	7.8E-01
11	VOC	n-Butylbenzene	104-51-8	ID	225	8	3.6	1.10E-02	5.40E+00	PA-CCC4C (4-5 ft)	8.32E+01	6.5E-02		
11	VOC	sec-Butylbenzene	135-98-8		225	11	4.9	2.40E-03	7.70E+00	PA-CCC4 (24.5-25.5 ft)	2.09E+03	3.7E-03		
11	VOC	tert-Butylbenzene	98-06-6		225	3	1.3	7.70E-04	1.90E-01	PA-CCC4C (0-1 ft)	1.30E+02	1.5E-03		
11	VOC	Chloromethane	74-87-3	D	225	2	0.9	1.20E-03	1.20E-03	PA-HHH32 (0.5-1.5 ft)	4.80E+03	2.5E-07	8.8E-04	**1.4E+00**
11	VOC	2-Chlorotoluene	95-49-8	ID	225	1	0.4	9.10E-03	9.10E-03	PA-UT06 (7-7.5 ft)	2.07E+02	4.4E-05		
11	VOC	Cumene	98-82-8	D	225	11	4.9	8.60E-05	3.40E+00	PA-CCC4C (8-10 ft)	1.46E+02	2.3E-02	5.1E-02	**6.6E+01**
11	VOC	p-Cymene	99-87-6	ID	225	9	4.0	1.30E-03	1.40E+01	PA-CCC4 (24.5-25.5 ft)	1.00E+02	1.4E-01		
11	VOC	1,2-Dibromo-3-chloropropane	96-12-8	LC	225	3	1.3	6.80E-04	3.10E-02	PA-HHH21 (0.5-2.5 ft)	4.02E+02	7.7E-05	2.3E-06	**1.4E+04**
11	VOC	1,2-Dibromoethane	106-93-4	LC	225	1	0.4	9.30E-05	9.30E-05	PA-UT06 (7-7.5 ft)	3.76E+02	2.5E-07	3.8E-06	**2.4E+01**
11	VOC	1,2-Dichlorobenzene	95-50-1	D	225	1	0.4	1.70E+00	1.70E+00	PA-CCC4C (4-5 ft)	1.77E+02	9.6E-03	1.4E-01	**1.2E+01**
11	VOC	1,1-Dichloroethane	75-34-3	SC	225	1	0.4	6.00E-04	6.00E-04	PA-UT06 (7-7.5 ft)	7.35E+02	8.2E-07	7.8E-03	7.7E-02
11	VOC	1,2-Dichloroethane	107-06-2	B2	225	1	0.4	7.00E-03	7.00E-03	PA-UT06 (7-7.5 ft)	9.48E+02	7.4E-06	6.0E-05	**1.2E+02**
11	VOC	cis-1,2-Dichloroethene	156-59-2	ID	225	1	0.4	1.10E-02	1.10E-02	PA-CCC4 (19.5-20.5 ft)	9.03E+02	1.2E-05		
11	VOC	1,3-Dichloropropane	142-28-9	ID	225	3	1.3	6.20E-05	3.70E-04	PA-UT06 (7-7.5 ft)	3.44E+05	1.1E-09		
11	VOC	1,1-Dichloropropene	563-58-6		225	1	0.4	1.10E-04	1.10E-04	PA-UT06 (7-7.5 ft)				
11	VOC	Ethyl Benzene	100-41-4	D	225	5	2.2	2.00E-04	1.00E+00	PA-CCC4C (4-5 ft)	1.97E+02	5.1E-03	9.2E-02	**1.1E+01**
11	VOC	Methylene Chloride	75-09-2	LC	225	42	18.7	3.00E-04	1.90E-03	PA-CCC3 (24-25 ft)	1.64E+03	1.2E-06	1.3E-02	1.5E-01
11	VOC	n-Propylbenzene	103-65-1	ID	225	13	5.8	5.80E-03	1.20E+01	PA-CCC4C (8-10 ft)	1.09E+02	1.1E-01		
11	VOC	Styrene	100-42-5		225	3	1.3	7.80E-05	1.20E-02	PA-HHH21 (0.5-2.5 ft)	7.58E+02	1.6E-05	5.4E-01	2.2E-02
11	VOC	Tetrachloroethene	127-18-4	LC	225	16	7.1	8.10E-05	2.30E+00	PA-CCC2B (4-5 ft)	1.26E+02	1.8E-02	7.8E-04	**2.9E+03**

Appendix B: Vapor Inhalation Soil Screening Summary by Sub-Area Yerington Mine Site, Nevada

Sub-Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	% Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Loc of MaxConc (ft)	Soil Saturation (mg/kg)	Ratio of Max Detect to Soil Saturation	Residential Vapor Intrusion Criteria at TCR 1E-6 or THQ 0.1 (mg/kg)	Ratio of Max Detect to Res VI Criteria
11	VOC	Toluene	108-88-3	ID	225	6	2.7	1.70E-04	2.00E+00	PA-CCC4C (4-5 ft)	2.91E+02	6.9E-03	2.7E-01	**7.5E+00**
11	VOC	1,2,4-Trichlorobenzene	120-82-1	LC	243	2	0.8	6.70E-03	2.00E-02	PA-HHH21 (0.5-2.5 ft)	5.28E+02	3.8E-05	6.0E-03	**3.3E+00**
11	VOC	1,1,1-Trichloroethane	71-55-6	ID	225	1	0.4	1.70E-04	1.70E-04	PA-UT06 (7-7.5 ft)	5.00E+02	3.4E-07	7.2E-02	2.4E-03
11	VOC	Trichloroethene	79-01-6	HC	225	3	1.3	1.00E-04	1.40E-03	PA-CCC4 (19.5-20.5 ft)	6.06E+02	2.3E-06	6.4E-05	**2.2E+01**
11	VOC	Trichlorofluoromethane	75-69-4	ID	225	39	17.3	5.60E-05	1.80E-03	PA-UT51 (3-3.5 ft)	1.13E+03	1.6E-06	3.4E-03	5.3E-01
11	VOC	1,2,3-Trichloropropane	96-18-4	LC	225	1	0.4	3.00E-04	3.00E-04	PA-CCC4 (19.5-20.5 ft)	2.97E+02	1.0E-06	7.8E-05	**3.8E+00**
11	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	225	16	7.1	3.20E-03	3.80E+02	PA-CCC2 (19.5-20.5 ft)	1.30E+02	**2.9E+00**	2.4E-02	**1.6E+04**
11	VOC	1,3,5-Trimethylbenzene	108-67-8	ID	225	18	8.0	1.00E-04	9.40E+01	PA-CCC2 (19.5-20.5 ft)	2.38E+02	3.9E-01	3.8E-02	**2.5E+03**
11	VOC	Vinyl Chloride	75-01-4	A	225	1	0.4	2.50E-04	2.50E-04	PA-DDD2 (4-5 ft)	1.87E+03	1.3E-07	7.7E-06	**3.2E+01**
11	VOC	Xylenes (total)	1330-20-7	ID	219	10	4.6	3.90E-04	1.40E+01	PA-CCC2 (19.5-20.5 ft)	1.39E+02	1.0E-01	7.9E-03	**1.8E+03**
11	SVOC	Acenaphthene	83-32-9	ID	229	5	2.2	1.50E-02	8.10E-01	PA-CCC4C (4-5 ft)	5.68E+01	1.4E-02		
11	SVOC	Acenaphthylene	208-96-8	D	229	1	0.4	4.10E-03	4.10E-03	PA-BBB4 (4-5 ft)				
11	SVOC	Benzo(a)anthracene	56-55-3	B2	229	5	2.2	4.60E-03	4.90E-01	PA-HHH19 (4-5 ft)	3.77E+01	1.3E-02	7.0E+01	7.0E-03
11	SVOC	Benzo(b)fluoranthene	205-99-2	B2	229	3	1.3	3.70E-02	1.10E+00	PA-HHH19 (4-5 ft)	3.71E+00	3.0E-01	8.2E+00	1.3E-01
11	SVOC	Benzo(g,h,i)perylene	191-24-2	D	229	5	2.2	3.20E-02	1.50E-01	PA-HHH19 (4-5 ft)				
11	SVOC	Benzo(k)fluoranthene	207-08-9	B2	229	1	0.4	3.80E-01	3.80E-01	PA-HHH19 (4-5 ft)	3.44E+00	1.1E-01	1.3E+04	3.0E-05
11	SVOC	Benzoic Acid	65-85-0	D	227	2	0.9	9.60E-02	4.80E-01	PA-CCC3 (0.5-2.5 ft)	1.40E+02	3.4E-03		
11	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	229	4	1.7	2.50E-01	9.00E+00	PA-HHH23 (0.5-1.5 ft)	7.34E+04	1.2E-04		
11	SVOC	Butylbenzylphthalate	85-68-7	C	229	1	0.4	5.20E-02	5.20E-02	PA-HHH19 (0.5-2.5 ft)	7.25E+02	7.2E-05		
11	SVOC	Chrysene	218-01-9	B2	229	7	3.1	1.50E-02	1.60E+00	PA-HHH19 (4-5 ft)	4.47E-02	**3.6E+01**	2.8E+02	5.7E-03
11	SVOC	Dibenz(a,h)anthracene	53-70-3	B2	229	4	1.7	3.00E-02	7.30E-02	PA-HHH33 (9-10 ft)	3.07E+03	2.4E-05	1.0E+05	7.1E-07
11	SVOC	2,4-Dimethylphenol	105-67-9	ID	223	2	0.9	3.10E-01	1.50E+00	PA-CCC4C (8-10 ft)	4.57E+03	3.3E-04		
11	SVOC	Di-n-butylphthalate	84-74-2	D	229	1	0.4	4.60E-02	4.60E-02	PA-CCC4 (4.5-5.5 ft)	1.27E+06	3.6E-08		
11	SVOC	Fluoranthene	206-44-0	D	229	9	3.9	5.40E-03	4.40E+00	PA-HHH19 (4-5 ft)	6.46E+01	6.8E-02		
11	SVOC	Fluorene	86-73-7	D	229	9	3.9	1.20E-02	3.40E+00	PA-CCC4C (4-5 ft)	8.09E+01	4.2E-02		
11	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	229	6	2.6	2.50E-02	1.90E-01	PA-HHH19 (4-5 ft)	8.48E-01	2.2E-01	2.2E+03	8.6E-05
11	SVOC	2-Methylnaphthalene	91-57-6	ID	229	10	4.4	7.80E-02	2.90E+00	PA-CCC2 (19.5-20.5 ft)	2.26E+02	1.3E-02		
11	SVOC	2-Methylphenol	95-48-7	C	227	1	0.4	3.70E-02	3.70E-02	PA-CCC2 (24.5-25.5 ft)	8.55E+03	4.3E-06		
11	SVOC	Naphthalene	91-20-3	C	225	13	5.8	1.20E-04	4.20E+00	PA-CCC4C (4-5 ft)	1.30E+02	3.2E-02	7.6E-03	**5.5E+02**
11	SVOC	Phenanthrene	85-01-8	D	229	15	6.6	4.10E-02	8.60E+00	PA-CCC4C (4-5 ft)	3.31E+01	2.6E-01		
11	SVOC	Pyrene	129-00-0	NC	229	9	3.9	7.40E-03	3.30E+00	PA-HHH19 (4-5 ft)	4.74E+01	7.0E-02		
11	PEST	Aldrin	309-00-2	B2	205	5	2.4	3.00E-04	2.10E-02	PA-HHH21 (4-5 ft)	2.90E+03	7.2E-06	3.7E-01	5.7E-02
11	PEST	alpha-BHC	319-84-6	B2	205	11	5.4	1.90E-04	2.90E-02	PA-HHH21 (4-5 ft)	6.89E+00	4.2E-03	7.9E-03	**3.6E+00**
11	PEST	beta-BHC	319-85-7	C	205	8	3.9	7.60E-04	5.40E-03	PA-HHH21 (0.5-2.5 ft)	1.28E+00	4.2E-03	6.2E-01	8.6E-03
11	PEST	delta-BHC	319-86-8	D	205	8	3.9	4.20E-04	2.30E-03	PA-CCC2 (4.5-5.5 ft)	1.46E+02	1.6E-05		
11	PEST	gamma-BHC	58-89-9	B2-C	205	7	3.4	2.50E-04	3.80E-03	PA-CCC2 (4.5-5.5 ft)	4.30E+00	8.8E-04		
11	PEST	4,4'-DDD	72-54-8	B2	205	17	8.3	1.30E-03	5.80E-01	PA-CCC2 (19.5-20.5 ft)	6.76E+02	8.6E-04		
11	PEST	4,4'-DDE	72-55-9	B2	205	23	11.2	8.30E-04	4.80E-01	PA-HHH36 (9-10 ft)	1.97E+03	2.4E-04		
11	PEST	4,4'-DDT	50-29-3	B2	205	32	15.6	7.40E-04	1.90E+00	PA-HHH36 (9-10 ft)	1.91E+02	9.9E-03	9.4E+02	2.0E-03
11	PEST	Dieldrin	60-57-1	B2	205	5	2.4	7.60E-04	3.90E-02	PA-HHH36 (9-10 ft)	1.91E+01	2.0E-03	5.0E-02	7.7E-01
11	PEST	Endosulfan	115-29-7		205	3	1.5	1.70E-03	1.33E-02	PA-HHH25 (0.5-2.5 ft)	5.63E-02	2.4E-01		
11	PEST	Endrin	72-20-8	D	205	1	0.5	6.50E-03	6.50E-03	PA-CCC2 (4.5-5.5 ft)	9.23E+00	7.0E-04		
11	PEST	Heptachlor	76-44-8	B2	205	5	2.4	5.30E-04	1.60E-03	PA-HHH21 (0.5-2.5 ft)	7.02E+02	2.3E-06	9.8E-02	1.6E-02
11	PEST	Heptachlor epoxide	1024-57-3	B2	205	8	3.9	3.50E-04	1.70E-03	PA-CCC2 (14.5-15.5 ft)	3.46E+02	4.9E-06	4.8E-01	3.6E-03
11	PEST	Methoxychlor	72-43-5	D	205	6	2.9	2.20E-03	7.80E-02	PA-HHH21 (4-5 ft)	3.37E+01	2.3E-03		

Appendix B: Vapor Inhalation Soil Screening Summary by Sub-Area Yerington Mine Site, Nevada

Sub-Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	% Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Loc of MaxConc (ft)	Soil Saturation (mg/kg)	Ratio of Max Detect to Soil Saturation	Residential Vapor Intrusion Criteria at TCR 1E-6 or THQ 0.1 (mg/kg)	Ratio of Max Detect to Res VI Criteria
11	PCB	PCBs (total)	1336-36-3	B2	201	1	0.5	2.40E-02	2.40E-02	PA-HHH25 (0.5-2.5 ft)	8.30E+01	2.9E-04	1.3E-01	1.9E-01
12	VOC	n-Butylbenzene	104-51-8	ID	116	1	0.9	2.40E+00	2.40E+00	PA-NNN1 (29-30 ft)	8.32E+01	2.9E-02		
12	VOC	sec-Butylbenzene	135-98-8		116	3	2.6	6.80E-02	1.20E+00	PA-NNN1 (29-30 ft)	2.09E+03	5.7E-04		
12	VOC	4-Chlorotoluene	106-43-4	ID	116	1	0.9	1.80E-01	1.80E-01	PA-NNN1 (29-30 ft)				
12	VOC	Cumene	98-82-8	D	116	2	1.7	8.80E-02	2.90E-01	PA-NNN1 (29-30 ft)	1.46E+02	2.0E-03	5.1E-02	**5.7E+00**
12	VOC	p-Cymene	99-87-6	ID	116	3	2.6	7.40E-02	1.30E+00	PA-NNN1 (29-30 ft)	1.00E+02	1.3E-02		
12	VOC	1,2-Dibromo-3-chloropropane	96-12-8	LC	116	2	1.7	3.10E-01	5.90E-01	PA-NNN1 (29-30 ft)	4.02E+02	1.5E-03	2.3E-06	**2.6E+05**
12	VOC	1,3-Dichloropropane	142-28-9	ID	116	3	2.6	6.70E-05	7.00E-05	PA-RR2 (0.5-2.5 ft)	3.44E+05	2.0E-10		
12	VOC	Methylene Chloride	75-09-2	LC	116	6	5.2	4.70E-04	1.70E-03	PA-UU2 (9-10 ft)	1.64E+03	1.0E-06	1.3E-02	1.3E-01
12	VOC	n-Propylbenzene	103-65-1	ID	116	2	1.7	2.00E-01	7.80E-01	PA-NNN1 (29-30 ft)	1.09E+02	7.2E-03		
12	VOC	Trichloroethene	79-01-6	HC	116	2	1.7	5.70E-04	8.00E-04	PA-UT74 (0.5-1 ft)	6.06E+02	1.3E-06	6.4E-05	**1.3E+01**
12	VOC	Trichlorofluoromethane	75-69-4	ID	116	7	6.0	7.50E-05	4.30E-03	PA-NNN2 (4-5 ft)	1.13E+03	3.8E-06	3.4E-03	**1.3E+00**
12	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	116	2	1.7	3.00E+00	8.90E+00	PA-NNN1 (29-30 ft)	1.30E+02	6.8E-02	2.4E-02	**3.6E+02**
12	VOC	1,3,5-Trimethylbenzene	108-67-8	ID	116	3	2.6	1.10E-01	3.40E+00	PA-NNN1 (29-30 ft)	2.38E+02	1.4E-02	3.8E-02	**9.0E+01**
12	VOC	Xylenes (total)	1330-20-7	ID	116	2	1.7	2.50E-01	9.60E-01	PA-NNN1 (29-30 ft)	1.39E+02	6.9E-03	7.9E-03	**1.2E+02**
12	SVOC	Acenaphthene	83-32-9	ID	114	2	1.8	2.20E-01	4.20E-01	PA-NNN1 (29-30 ft)	5.68E+01	7.4E-03		
12	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	117	2	1.7	1.80E-02	5.80E-01	PA-UU2 (4-5 ft)	7.34E+04	7.9E-06		
12	SVOC	Chrysene	218-01-9	B2	114	3	2.6	2.50E-02	4.70E-02	PA-NNN1 (29-30 ft)	4.47E-02	**1.1E+00**	2.8E+02	1.7E-04
12	SVOC	Diethylphthalate	84-66-2	D	117	10	8.5	2.10E-02	2.50E-01	PA-ZZ1 (0.5-2.5 ft)	1.60E+03	1.6E-04		
12	SVOC	Di-n-octylphthalate	117-84-0		117	1	0.9	4.10E-01	4.10E-01	PA-UU2 (4-5 ft)	3.45E+02	1.2E-03		
12	SVOC	Fluoranthene	206-44-0	D	114	2	1.8	1.40E-01	1.50E-01	PA-NNN1 (29-30 ft)	6.46E+01	2.3E-03		
12	SVOC	Fluorene	86-73-7	D	114	2	1.8	7.00E-01	1.00E+00	PA-NNN1 (29-30 ft)	8.09E+01	1.2E-02		
12	SVOC	2-Methylnaphthalene	91-57-6	ID	117	2	1.7	2.60E+00	9.80E+00	PA-NNN1 (29-30 ft)	2.26E+02	4.3E-02		
12	SVOC	Naphthalene	91-20-3	C	116	3	2.6	5.70E-03	5.00E+00	PA-NNN1 (29-30 ft)	1.30E+02	3.8E-02	7.6E-03	**6.5E+02**
12	SVOC	Phenanthrene	85-01-8	D	114	2	1.8	3.50E+00	4.00E+00	PA-NNN1 (29-30 ft)	3.31E+01	1.2E-01		
12	SVOC	Pyrene	129-00-0	NC	114	5	4.4	1.10E-02	3.30E-01	PA-NNN1 (29-30 ft)	4.74E+01	7.0E-03		
12	PEST	alpha-BHC	319-84-6	B2	50	3	6.0	3.40E-04	4.70E-02	PA-PP1 (4.5-5 ft)	6.89E+00	6.8E-03	7.9E-03	**5.9E+00**
12	PEST	4,4'-DDE	72-55-9	B2	50	1	2.0	2.60E-03	2.60E-03	PA-AA1 (0.5-2.5 ft)	1.97E+03	1.3E-06		
12	PEST	4,4'-DDT	50-29-3	B2	50	3	6.0	8.80E-04	1.20E-02	PA-AA1 (0.5-2.5 ft)	1.91E+02	6.3E-05	9.4E+02	1.3E-05
12	PEST	Methoxychlor	72-43-5	D	50	1	2.0	2.30E-03	2.30E-03	PA-PP1 (4.5-5 ft)	3.37E+01	6.8E-05		
12	PCB	PCBs (total)	1336-36-3	B2	53	2	3.8	1.20E-02	1.30E-02	PA-QQ2 (0.5-2.5 ft)	8.30E+01	1.6E-04	1.3E-01	1.0E-01

Notes:

Only constituents detected in each sub-area are shown.

The criteria for soil are the lower of the criteria at either the target cancer risk (TRC) of 1E-6 or target hazard quotient (THQ) of 0.1.

Criteria were not calculated for non-volatile chemicals or for chemicals without an inhalation toxicty value.

Concentration/criterion ratios greater than 1 are shaded in bold.

Chem Group - chemical group

Carc Class - USEPA Weight-of-Evidence Cancer Classification

B.1 Vapor Intrusion Calculations and Modelling Assumptions

According to Johnson and Ettinger (1991), the steady-state vapor-phase concentration of the VOC in the building ($C_{building}$) is assumed to be proportional to the concentration of the source (C_{source}) multiplied by the attenuation coefficient ($\propto$).

$$C_{building} = \propto C_{source}$$

Where C_{source} is calculated using the following equation:

$$C_{source} = \frac{H`_{TS}\, C_R \rho_b}{\theta_w + K_d \rho_b + H`_{TS}\, \theta_a}$$

Where:

C_{source} = Vapor concentration at the source of contamination, g/mL-v
H'_{TS} = Henry's law constant at the system (soil) temperature, dimensionless
C_R = Initial soil concentration, g/g
ρ_b = Soil dry bulk density, g/mL
θ_w = Soil water-filled porosity, mL / mL
K_d = Soil-water partition coefficient, mL/g (= K_{oc} x f_{oc})
θ_a = Soil air-filled porosity, mL / mL
K_{oc} = Soil organic carbon partition coefficient, mL /g
f_{oc} = Soil organic carbon weight fraction.

And $\propto$ is calculated using the following equation:

$$\propto = \frac{\left[\left(\frac{D_{eff} \times A_b}{Q_b \times L_T}\right) \times \exp\left(\frac{Q_s \times L_{crack}}{D_{crack} \times A_{crack}}\right)\right]}{\left[\exp\left(\frac{Q_s \times L_{crack}}{D_{crack} \times A_{crack}}\right) + \left(\frac{D_{eff} \times A_b}{Q_b \times L_T}\right) + \left(\frac{D_{eff} \times A_b}{Q_s \times L_T}\right)\left[\exp\left(\frac{Q_s \times L_{crack}}{D_{crack} \times A_{crack}}\right) - 1\right]\right]}$$

Where:

$\propto$	=	attenuation coefficient
D_{eff}	=	Effective diffusion coefficient through soil (cm^2/sec)
A_b	=	Area of building foundation and below grade walls (cm^2)
Q_b	=	Building ventilation rate (cm^3/sec)
L_T	=	Distance from contaminant source to building foundation (cm)
Q_s	=	Soil gas emission rate into building (cm^3/sec)
L_{crack}	=	Thickness of foundation (cm)
D_{crack}	=	Effective diffusion coefficient through crack (cm^2/sec)
A_{crack}	=	Area of cracks in foundation through which vapors can pass (cm^2).

Indoor air concentrations also may be calculated based on mass balance, to ensure that the VOC mass estimated by the Johnson-Ettinger Model (1991) to enter a building during the exposure period does not exceed the VOC's mass in the vadose zone underlying the building. The normalized indoor air concentration calculated by mass balance is given by the following equation:

$$C_{b,ML} \; \square \; \square_b \; \square \left[\frac{\square H}{ach \; \square H_b \; \square ED} \right]$$

where ΔH is the COPC thickness, *ach* is the air exchange rate, H_b is the building occupied height, and *ED* is the exposure duration. The VOC mass under a building can be estimated in several ways, depending on the VOC concentration distribution, and the desired degree of simplicity/conservatism (Sandvig 2015).

For the calculation of risk-based screening levels, no vertical delineation is assumed, and thus the mass balance analysis is not used and the distance from the soil source to foundation L_T is set to approach zero. However, a mass balance analysis may be used in the risk assessment. Model assumptions are listed in Table B-1.

Table B-1: Vapor intrusion modelling assumptions

Input Parameter	Symbol	Units	Value
General Parameters			
Crack soil type	--	--	Sand
Crack soil hydraulic conductivity	K	cm/s	0.00744[a]
Crack soil permeability to vapor	k_v	cm^2	9.92E-08
Depth to source	L_{T8}	cm	Chemical-specific
Thickness of contamination	ΔH	cm	Chemical-specific
Yerington Site-Specific Warehouse Building			
Indoor air exchange	ER	h^{-1}	0.63[d]
Building ventilation rate	$Q_{building}$	cm^3/s	1,454,262
Area of building foundation and below grade walls	A_B	cm^2	17,040,000
Foundation slab thickness	L_{crack}	cm	15[e]
Pressure differential between soil surface and enclosed space	ΔP	g/cm-s	10[f]
Crack length	X_{crack}	cm	19000[c]
Crack width	r_{crack}	cm	0.1[a]
Area of cracks in foundation through which vapors can pass	A_{crack}	cm^2	1900

Table B-1: Vapor intrusion modelling assumptions			
Input Parameter	**Symbol**	**Units**	**Value**
Soil gas entry rate into building	Q_s	cm^3/s	115.3[a]
Effective diffusion coefficient through crack	D_{crack}	cm^2/sec	Chemical-specific
Generic Industrial Building			
Indoor air exchange	ER	h^{-1}	1[e]
Building ventilation rate	$Q_{building}$	cm^3/s	84,667
Area of building foundation and below grade walls	A_B	cm^2	1,000,000
Foundation slab thickness	L_{crack}	cm	10[a]
Pressure differential between soil surface and enclosed space	ΔP	g/cm-s	10[f]
Crack length	X_{crack}	cm	4000[c]
Crack width	r_{crack}	cm	0.1[a]
Area of cracks in foundation through which vapors can pass	A_{crack}	cm^2	400
Soil gas entry rate into building	Q_s	cm^3/s	26.1[a]
Effective diffusion coefficient through crack	D_{crack}	cm^2/sec	Chemical-specific
Generic Residential Slab-on-Grade Building			
Indoor air exchange	ER	h^{-1}	0.25[a]
Building ventilation rate	$Q_{building}$	cm^3/s	16,944
Area of building foundation and below grade walls	A_B	cm^2	1,000,000
Foundation slab thickness	L_{crack}	cm	10[a]
Pressure differential between soil surface and enclosed space	ΔP	g/cm-s	40[a]

Table B-1: Vapor intrusion modelling assumptions

Input Parameter	Symbol	Units	Value
Crack length	X_{crack}	cm	4000[c]
Crack width	r_{crack}	cm	0.1[a]
Area of cracks in foundation through which vapors can pass	A_{crack}	cm^2	400
Soil gas entry rate into building	Q_s	cm^3/s	104.5[a]
Effective diffusion coefficient through crack	D_{crack}	cm^2/sec	Chemical-specific

Notes:

[a] USEPA 2004.

[b]Assumes building is 2 stories

[c] Current warehouse building dimensions (approximate)

[d] Minimum for warehouses, ASHRAE Standard 62.1. 2016. Ventiliation for acceptable indoor air quality

[e] Assumed for industrial building

[f] Michigan DEQ default for industrial buildings (MDEQ 2013).

B.2 Outdoor Vapor Modelling Assumptions for an Excavation

The exposure concentrations in air due to vapor emissions from soil are calculated as described above. The normalized vapor flux (J_v) is calculated using the Jury model as outlined below:

$$J_v = \frac{1}{T}\left[2\exp\left(-\frac{Z_1^2}{4D_E T}\right) - \exp\left(-\frac{Z_2^2}{4D_E T}\right)\right]\sqrt{\frac{D_E T}{\pi}} - Z_1\,\mathrm{erfc}\left(\frac{Z_1}{2\sqrt{D_E T}}\right) - Z_2\,\mathrm{erfc}\left(\frac{Z_2}{2\sqrt{D_E T}}\right)$$

Where:

$$D_E = \frac{D_G H + D_L}{\theta_b K_d + \theta_w + \theta_a H}$$

$$D_G = D_{air}\frac{\theta_a^{10/3}}{n^2}$$

$$D_L = D_{water}\frac{\theta_w^{10/3}}{n^2}$$

Derivation of this equation and definition of the equation parameters can be found in Jury et al. (1983 and 1990). Model parameters that will be used are listed in Table B-2. No chemical-specific vertical delineation is assumed, but this may be used in the risk assessment.

Table B-2: Vapor emission migration modelling assumptions			
Parameter	**Symbol**	**Units**	**Value Adopted**
Soil concentration	C_s	mg/kg	Chemical-specific
Depth to source	Z_1	m	0 ft or chemical-specific if vertically delineated
Depth to bottom of source	Z_2	m	120 ft or chemical-specific if vertically delineated
Averaging time	T	days	365[a]
Notes: [a] Equal to averaging period			

The parameters proposed for modelling vapor concentrations in an excavation pit are given in Table B-3**.** C/Q will be calculated using the default variables for Las Vegas, NV and the area of the excavation.

Table B-3: Excavation pit vapor migration modelling assumptions			
Parameter	**Symbol**	**Units**	**Value Adopted**
Soil concentration	C_s	mg/kg	Chemical-specific
Depth to source	Z_1	m	Chemical-specific
Depth to bottom of source	Z_2	m	Chemical-specific
Excavation depth	--	m	<4.57[a]
Excavation length	--	m	>4.57[b]
Excavation width	--	m	>4.57[b]
Averaging time	T	days	365[c]
Notes: [a] Assumed to be up to 15 feet [b] Assumed to be at least as large as a UST excavation pit (15 ft by 15 ft) [c] Equal to averaging period for construction worker			

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APPENDIX C
INTEGRATED EXPOSURE UPTAKE AND BIOKINETIC MODEL (IEUBK) AND ADULT LEAD MODEL (ALM) PARAMETERS AND EQUATIONS

1. IEUBK MODEL

The current IEUBK model is used in Superfund risk assessments for lead to predict the risk, as a probability, that a typical child (0 to 6 years old) will have a blood lead level greater than 10 micrograms per deciliter (µg/dL) when exposed to a combination of specified media concentrations of lead (USEPA 1994, 2002a). The model includes three modules. The exposure module calculates media-specific lead intake rates to estimate how much lead is taken into a child's body from air (indoor and outdoor), soil, dust (indoor), diet, and other sources such as lead-based paint. The uptake model incorporates absorption factors to estimate the fraction of lead intake that crosses into the bloodstream from the lungs or gastrointestinal tract. The transfer of lead between blood and other body tissues and through elimination pathways is addressed by the biokinetic module.

The model incorporates numerous default input values and recommends the use of site-specific data where doing so would more accurately predict child blood lead levels. The baseline HHRA will incorporate model defaults for all input values due to a lack of site-specific information. Alternate soil ingestion rates will also be incorporated in the baseline HHRA. The basis for each of the alternate model assumptions is described below. EPCs for residential soil input in the model will be calculated as geometric means consistent with model guidance. Table C-1 summarizes the IEUBK model inputs that will be used in the baseline HHRA.

Note, the TRW is currently finalizing updates to several IEUBK model default assumptions that are anticipated to be released in the near future. Details regarding specific changes and the technical basis for each are currently not available for consideration in this work plan.

Age-Dependent Soil Ingestion Rates – Alternate Inputs

The IEUBK model is designed to use central tendency values of all input parameters including soil ingestion rate (USEPA 1999), which is intended to include both outdoor soil and indoor dust. The current default IEUBK model values for age-dependent soil ingestion rates range from 0.085 to 0.135 g/day and are based on observational studies of soil/dust ingestion in US children published by Binder et al. (1986), Clausing et al. (1987), Calabrese et al. (1989 and 1991), Van Wijnen et al. (1990), and Davis et al. (1990). The default age-dependent rates yield an average child soil/dust ingestion rate of 109 mg/day. In contrast, lower ingestion rates are provided in USEPA's Exposure Factors Handbook (2011); these yield an average soil/dust ingestion rate of 94 mg/day for children less than 7 years of age based on studies by Davis and Mirick (2006), Hogan et al. (1998), Davis et al. (1990), Van Wijnen et al. (1990), and Calabrese and Stanek (1995).

More recent soil ingestion data re-analyses by Stanek et al. (2012a,b) result in an average soil ingestion rate of 26 mg/day for children between one and seven years of age, which is roughly one-fourth of the average IEUBK model default values and the rates recommended by USEPA (2011) for the same age range (113 and 100 mg/day, respectively). Stanek et al. (2012a,b) assume that the ingestion rate pertains to incidentally ingested soil, which may underestimate combined soil and dust ingestion; however, USEPA (2011) recommendations for soil without dust result in an average ingestion rate (50 mg/day) that is still nearly two times higher. Thus, the data re-analysis by Stanek et al. (2012a,b) suggests that current IEUBK model default values likely overestimate child soil ingestion rates.

Another analysis of soil ingestion developed using USEPA's Stochastic Human Exposure and Dose Simulation (SHEDS) model predicted a mean combined soil and dust ingestion rate of 68 mg/day for children ages 3 to 6 years old (Ozkaynak et al. 2011); 41 mg/day for soil ingestion alone. SHEDS predicted that approximately 60 percent of total soil and dust intake is attributable to soil ingestion, while 30 percent and 10 percent is ingested from dust on hands and on objects, respectively. Based on the current IEUBK model and USEPA (2011), corresponding average rates for children ages 3 to 6 years are 108 and 100 mg/day, respectively, further suggesting these rates are overestimated. Similarly, Wilson et al. (2013) estimated soil ingestion rates using a probabilistic mechanistic model. Separate soil and dust ingestion rates were estimated, with a mean probabilistic combined soil and dust ingestion rate of 61 mg/day, for toddlers age 7 months through 4 years old. Considering similar ages, this value is approximately 50 to 60 percent of the current IEUBK defaults and USEPA (2011) recommendations, respectively.

Most recently, von Lindern et al. (2016) estimated children's soil/dust ingestion rates through a retrospective analysis of blood lead biomonitoring results from the Bunker Hill Superfund Site in Idaho and concluded that USEPA default soil ingestion rate assumptions cause USEPA lead risk model to markedly overestimate the contribution of soil lead to child BLLs. The average of the age-specific (0 to 6 years) soil ingestion rates from von Lindern et al. (2016) is 71.3 mg/day, which is consistent with the evaluations by Ozkaynak et al. (2011) and Wilson et al. (2013). Stifelman et al. (2015) recommend reduction of the current IEUBK default soil ingestion rate, 109 mg/day, to 70 mg/day "based on concordance between IEUBK model predictions and blood lead observations representing the more than half of resident children for 15 consecutive years."

The combined results of these efforts by Stanek et al. (2012a,b), Ozkaynak et al. (2011), Wilson et al. (2013), and von Lindern et al. (2016) support the use of lower soil ingestion rates than those currently recommended by USEPA (2011) and provided in the IEUBK model. The age-specific soil and dust ingestion rates estimated by von Lindern et al. will be used to evaluate child lead risk in the baseline HHRA.

2. ADULT LEAD MODEL (ALM)

USEPA's ALM is typically used to evaluate lead risk for adult commercial/industrial workers. In this setting, USEPA (2013) assumes "the most sensitive receptor is the fetus of a worker who develops a body burden as a result of non-residential exposure to lead. This body burden is available to transfer to the fetus for several years after exposure ends."

The ALM predicts the fetal geometric mean blood lead level based on assumed proportionality between fetal and adult blood lead levels. The central tendency adult blood lead level is estimated as the sum of the baseline blood lead level (PbB_0) that would occur without a site-related exposure, and the increment in blood lead estimated from exposure to contaminated soil in the non-residential setting, most typically, the work site. The increment of blood lead estimated from the site is determined by multiplying the daily average uptake of lead by a biokinetic slope factor (BKSF) that relates the quasi-steady state increase in typical adult blood lead concentration to average daily lead uptake. The basic equation for estimating the fetal geometric mean blood lead level is provided as Equation 1.

Equation 1: Geometric mean fetal blood lead equation

$$PbB_{fetal,GM} = R_{fetal/maternal} \times [PbB_{adult,0} + \frac{Pbs \times BKSF \times IRs \times AFs \times EFs}{AT}]$$

Where:

$PbB_{fetal,GM}$ = central estimate of blood lead concentrations (µg/dL) for fetuses carried by women of child-bearing age who have exposures to soil at the site at lead concentration, PbS

$R_{fetal/maternal}$ = constant of proportionality between fetal and maternal blood lead concentrations.

$PbB_{adult,0}$ = typical blood lead concentration (µg/dL) in women of child-bearing age absent site-specific soil lead exposure

BKSF = biokinetic slope factor relating increase in typical adult blood lead concentrations (µg/dL) to average daily lead uptake (µg/day) under quasi-steady state conditions

Pbs = lead concentration in soil to which exposures occur (µg/g)

IRs = intake rate of soil (g/day), including both outdoor soil and indoor dust derived from outdoor soil

AFs = absolute gastrointestinal absorption fraction for lead in soil and indoor dust derived from soil (unitless)

EFs = exposure frequency for contact with soil (and/or soil-derived indoor dust) to which exposure occurs (days/year)

AT = averaging time over which the soil contact may occur (days/year)

From this equation, the probability that the fetal blood lead concentration exceeds 10 µg/dL is calculated based on Equation 2.

Equation 2: Probability of fetal blood lead exceeding 10 µg/dL

$$z = \frac{\ln(10) - \ln(GM)}{\ln(GSD)}$$

Where:

z	= probability that fetal blood lead exceeds 10 µg/dL (unitless)
GM	= fetal geometric mean blood lead (µg/dL; from Equation 1)
GSD	= estimated value of the individual geometric standard deviation (µg/dL) among women of child-bearing age who have similar site-related exposures to lead in soil and soil-derived dust, but have a non-uniform response to site lead (i.e., in terms of intake and biokinetics) and to off-site lead exposures

Table C-2 summarizes the parameters selected for use in the ALM to evaluate exposures to adult residents and workers evaluated in the baseline HHRA. The basis for each parameter is also provided.

Table C-1: IEUBK model input values selected for use in the baseline HHRA

IEUBK Model Parameter	Input Value	Source
Maternal Blood Lead (µg/dl)	0.7	IEUBK model default[1]
Soil-Dust Relationship (MSD)	0.7	IEUBK model default[2]
Air concentration (µg/m^3)	0.1	IEUBK model default[2]
Soil/Dust Absorption	60%	IEUBK model default[2]
Drinking water concentration (µg/L)	4	IEUBK model default[2]

Age-Dependent IEUBK Parameters				
Age (years)	**Vent. Rate (m^3/day)[1]**	**Diet (µg/day)[1]**	**Water (L/day)[1]**	**Soil (g/day)[3]**
0-1	2	2.26	0.2	0.086
1-2	3	1.96	0.5	0.094
2-3	5	2.13	0.52	0.067
3-4	5	2.04	0.53	0.063
4-5	5	1.95	0.55	0.067
5-6	7	2.05	0.58	0.052
6-7	7	2.22	0.59	0.055

Notes:
[1] USEPA (2016) update
[2] IEUBKwin v1.1 build 11
[3] Based on von Lindern et al. (2016)

Table C-2: ALM inputs selected for use in the baseline HHRA

Parameter	Units	Resident	Indoor Worker	Outdoor Worker	Construction Worker	Source/Basis
$R_{fetal/maternal}$	unitless	0.9	0.9	0.9	0.9	USEPA (2003) default
$PbB_{adult,0}$	µg/dL	0.7	0.7	0.7	0.7	USEPA (2016) update
PbS	µg/g	Site-specific	Site-specific	Site-specific	Site-specific	OU-3 geometric mean soil concentration
BKSF	µg/dL per µg/day	0.4	0.4	0.4	0.4	USEPA (2003) default
IRs	g/day	0.035	0.025	0.050	0.165	Resident: derived from von Lindern et al. (2016) Indoor Worker: USEPA (2003) default Outdoor Worker: USEPA (2013) recommendation for contact-intense worker Construction Worker: USEPA (2002b)
AFs	unitless	0.12	0.12	0.12	0.12	USEPA (2003) default
EFs	days/ year	350	219	219	219	Resident: professional judgment Workers: USEPA (2013) default
AT	days/ year	365	365	365	365	USEPA (2003) default
$GSD_{i,adult}$	unitless	1.7	1.7	1.7	1.7	USEPA (2016) update

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